

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1705.—VOL. XXXVIII.

LONDON, SATURDAY, APRIL 25, 1868.

(WITH SUPPLEMENT) {STAMPED .. SIXPENCE, UNSTAMPED .. FIVEPENCE

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.

The Mining Share Market is in a position highly advantageous to buyers, the range of prices being low, which should encourage investments, especially in first-rate dividend mines, and of the most eligible for permanency of dividends a list will be furnished on application of shares select in quality and moderate rate in price.

SUMMER HILL shares are scarce, but well worth buying, if to be met with, at £5½ to £6 per share. It is reported that a new course of lead may be discovered any day, and there are only 500 shares in this mine.

WEST GODOLPHIN are recommended as an INVESTMENT. These shares are now at a moderate price, and the prospects of the mine most encouraging. Dividends will be regularly paid, yielding a high percentage on cost. A limited number of shares for sale AT THE LOWEST MARKET PRICE.

BUSINESS IN ST. JOHN'S SLATE QUARRIES (Pembroke) on terms highly advantageous to BUYERS.

Bankers: National Bank of Scotland, 37, Nicholas-lane, E.C.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET,
has FOR SALE the following shares, free of commission:—

75 Anglo-Brazil, 15s. 9d.	30 E. Carn Brea, 26s.	30 Pestarena, £2 10s. 6d.
10 Cliffole, £5½	25 East Grenville, 37s. 3d.	25 Prince of Wales, 52s. 3d.
10 Colquhite and Callington United, 32s. 6d.	100 Frontino (37s. 6d. pd.), 12s. 3d.	100 Redmoor, 2s. 9d.
100 Chontales Royalty (£5 paid), £1 18s. 6d.	25 Gawton, £2 11s. 3d.	75 Rossa Grande, 12s. 9d.
30 Chontales (£5 paid), £2 16s. 3d.	15 Great Laxey, £17 2 6	50 South Grenville, 3s. 9d.
60 Carn Camborne, 7s. 3d.	5 Javall (10s. paid), 10s. 6d. prem.	25 So. Condurrow, 8s. 9d.
50 Don Pedro, £2 13s. 6d.	50 No. Downs, 28s. 9d.	50 West Godolphin, 21s. 6d.
10 East Caradon, £3 17 6	50 New Birch Tor, 15s. 9d.	50 W. Drake Walls, 3s. 3d.
10 East Russell, 15s.	30 New Lovell, 15s. 3d.	2 Wheel Seton, £77.
20 East Laxey, 2s. 6d.	20 North Croft, £2 11 6	1 W. Wh. Seton, £209.
	50 New Quebrada, 9s. 6d.	

SPECIAL BUSINESS IN St. John del Rey, Anglo-Brazilian, Frontino and Bolivia, and Chontales.

GUIDE TO INVESTORS.—THE STOCK, SHARE, AND FINANCE REGISTER for April contains a comprehensive review of the Stock and Share Markets; a list of all the dividends paid in March; a comparative estimate of the profits of the several descriptions of shares; a selection of Investments paying 10 to 19 per cent.; and information of intending investors.—6d. per copy, or 5s. annually, post free.

Published by Mr. BAKER LEE, at his offices, 11, Royal Exchange, London.

MR. WILIAM WARD,
STOCK AND SHAREDEALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C.
JOHN BATTERS has placed in his hands, FOR SALE, SHARES IN A LEAD MINE, of the highest promise, and that must eventually in a large profit, 500 only from a market rise in the price of shares, but from permanent dividends in working. Immediate application is necessary to secure a preference.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

MR. J. B. REYNOLDS, 70 and 71, BISHOPSGATE STREET WITHIN, LONDON, E.C., STOCK AND SHAREDEALER,
refers with much pleasure to the improving prospects of Cornish Mines, and anticipates a very favourable future for many, the merits of which are matters almost of certainty. He begs to assure his friends of his constant attention to their interests, and recognises the fact that the interests of the dealer and his customer are really identical. He deprecates, as far as he is concerned, "bump bargains," and prefers bona fide transactions for cash, not with mere speculators, but investors who buy on the real merits of the undertaking rather than on the chance of market operations. In making these remarks, Mr. REYNOLDS does not in any way intend to reflect on those whose views differ from his own in such matters, but only wishes to save unnecessary correspondence.

Mr. REYNOLDS recommends the purchase of shares in sound tin mines, the working expenses of which are moderate—such as, for instance, WEST WHEEL KITTY or WEST ST. IVES, both these properties being certainly of more than ordinary promise, but the shares in which are low, because of exceptional circumstances.

WANTED TO PURCHASE—
100 West Wheel Kitty. 25 Colquhite and Callington United. 10 St. John del Rey.
50 W. Kitty (St. Agnes). 45 Great North Downs. 110 Don Pedro.
5 West Wheel Frances. 300 West St. Ives.
FOR SALE—
2 Carn Brea. 4 Levant. 50 West St. Ives.
20 West Bassot. 25 Prosper United. 10 Colquhite and Callington.

WEST WHEEL KITTY—WEST ST. IVES MINES—
CONDUCTED ON THE COST-BOOK SYSTEM.

Mr. J. B. REYNOLDS, of 70 and 71, Bishopsgate-street Within, London, E.C., is a BUYER of any number of shares in these mines, and is prepared to deal either for cash or account as a BUYER or a SELLER.—April 25, 1868.

COLQUHITE AND CALLINGTON UNITED.
This mine has recently been INSPECTED by another INDEPENDENT AGENT, whose REPORT is even more FAVOURABLE than OTHERS. Mr. REYNOLDS has, by the kindness of a friend, been enabled to supply anyone with a copy GRATIS with whom he has done business in the past, and strongly recommends an immediate purchase of the shares.

Apply to J. B. REYNOLDS, 70 and 71, Bishopsgate-street Within, London, E.C., April 25, 1868.

MESSRS. POWELL AND MOSS, SHAREDEALERS,
78, OLD BROAD STREET, LONDON, E.C., and Mining Exchange, have large transactions in Prince of Wales, North Treskerby, Frontino, North Croft, Chiverton, Chiverton Moor, and West Chiverton. Parties dealt with at a fair margin on the market price.

References exchanged.
Bankers: City Bank, Finch Lane.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 43, THREADNEEDLE STREET, LONDON, E.C.
Business transacted in the British Funds, Railway and other Stocks, Foreign Bonds, &c., on the usual commission, 1½ per cent. on mining and other shares, above £2; and at £2 and under 6d. per share.

Bankers: London and Westminster, Lothbury.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S,
BISHOPSGATE STREET, LONDON, E.C. (Established 13 years), has FOR SALE the FOLLOWING SHARES, at nett prices:—

50 Anglo-Braz., 16s. 3d.	50 Frontino, 11s. (ex call)	25 South Darren, 31s.
20 Carn Camborne, 6s. 9d.	20 Frank Mills, 17s.	5 St. John del Rey, 21½
30 Chontales, £2½	30 Gunnislake (Clitters), 15s.	50 So. Herodsfoot, 15s.
20 do., Royalty, £2 2 6	20 Gt. Retallack, £2 8 9	2 W. Chiverton, £64 17 6
25 Carnarvon Cons., £2½	25 G. So. Tolgus, 11s. 6d.	1 Wheel Seton, £75 8 9
10 Chiverton Moor, £6 18	30 New Lovell, 20s.	60 Wheel Crebor, 2s. 6d.
20 Chiverton, £2½	10 No. Treskerby, 19s. 3d.	3 Wh. Mary Ann, £22½
25 Don Pedro, £2 prem.	40 North Croft, £2 11 9	5 Wh. Trellaway, £8 6 3
10 East Caradon, £2½	20 Okel Tor, 13s.	50 West St. Ives, 15s.
20 E. Carn Brea, 26s.	50 Pestarena, £2 12s.	20 W. Kitty, 10s. (call pd.)
30 East Grenville, 38s.	50 Port Phillip, 38s. 9d.	20 Wh. Grenville, 38s. 9d.
5 East Lovell, £8 8s. 6d.	30 Prince of Wales, 52s. 3d.	5 West Frances, 4s. 6d.
40 East Gunnislake, 29s.	20 Prosper Unit., 11s. 6d.	20 Wheel Ury, 40s. 6d.
15 East Russell, 20s.	20 Rossa Grande, 12s. 6d.	50 Yudanamutana, £26 9

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), has FOR SALE at nett prices:—150 West St. Ives; 40 Carnborne Veau, 12s. 6d.; 70 West Wheel Kitty; 30 Lovell Consols, 8s.; 10 Carnarvonshire Consols; 50 Colquhite and Callington United, £1 17s. 6d.; 2 Wheel Buller, £11; 40 East Grenville; 50 West Trellaway, 7s.; 80 South Grenville, 7s.; 150 Great Rhosemor; 10 South Caradon, £40s; 2 Mary Ann, £22½; 100 Anglo-Brazilian; 90 Crebor, 8s.; 30 Wheel Kitty (St. Agnes), £2 11s. 6d.; 20 South Herodsfoot; 20 Prosper United, 15s.; 50 Chiverton Valley; 10 East Maes-y-Safn; 50 West Drake Walls; 60 Cuddra, 17s.; 100 West Seton; 50 South Condurrow; 100 East Providence.

SPECIAL BUSINESS IN West St. Ives, Gawton, West Wheel Kitty, Herodsfoot, Anglo-Brazilian, East Providence.

GOLD MINE SHARES.—
DON PEDRO, ANGLO-BRAZILIAN, CHONTALES, FRONTINO.

Shareholders and others, before operating, will do well to read PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST," No. 476, of yesterday, April 24, price 6d. each copy, forwarded on application. From information which he has obtained, he is in a position to advise as to purchase and sale of shares in these undertakings; also in St. John del Rey, Anglo-Argentine, and other foreign schemes.

CORNWALL AND DEVON MINES.—
FOREIGN GOLD MINES, &c.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, April 24, No. 476, Vol. X., price 6d. each copy, forwarded on application, contains information on the following mines:—
Wheat Trellaway, Great South Tolgus, West Caradon.
East Wheat Lovell, Dolcoath, Don Pedro.
North Wheel Croft, Brookwood, Anglo-Brazilian Gold.
Wheat Henriteta, New Wheel Lovell, Chontales.
East Wheel Seton, North Roskar, Frontino and Bolivia.
With a Leading Article on Gold Mining in Brazil and the Don Pedro North del Rey Gold Mining Company, Remarks on the Tin Trade, Cornish Mining, &c.

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—
STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER, 79, OLD BROAD STREET, LONDON (three doors only from Hercules-passage, entrance to the Stock Exchange).

(Twenty-three years' experience.)
(Two in Cornwall and Twenty-one in London.)
Bankers: The Alliance Bank, and the Union Bank of London.

References given and required (when necessary) in all the principal towns of the United Kingdom.

MR. EDWARD COOKE,
FOREIGN AND BRITISH MINING SHAREDEALER,
79, OLD BROAD STREET, LONDON, E.C.
SHARES in all the Gold Mines, and also those in British Mines, DEALT IN, at close market prices, either for cash or fortnightly settlement.

Satisfactory references given in any town in the United Kingdom.
Bankers: Alliance Bank.
A daily list of prices sent free on application.

MR. W. H. CUELLO
(late of the firm of WATSON and CUELLO),
Has REMOVED TO 42, CORNHILL, LONDON, E.C.

JOHN WILLIAM HUTCHINSON
has FOR SALE, at quoted prices nett, the following shares:—
10 Cliffole, £5 13s. 9d. 25 East Russell, 11s. 3d. 20 Prince of Wales, 51s. 9d.
25 Chontales, £2 15s. 10 Gawton, £2½. 25 W. Drake Walls, 3s. 3d.
5 Chiv. Moor, £5 18s. 9d. 15 No. Croft, £2 11s. 9d. 15 Wh. Grenville, 38s. 9d.
25 E. Carn Brea, 26s. 9d. 20 No. Treskerby, 19s. 3d. 1 Wheel Seton, £75.
J. W. H. has other shares for sale in dividend and progressive mines, and parties, by applying, will be afforded every facility in exchanging shares—that they may be desirous to dispose of.

WEST GODOLPHIN—25 shares for sale, at 22s. each, nett

OFFICES—31, THROGMORTON STREET, LONDON, E.C.

Established Fourteen Years.

MESSRS. WARD AND JACKMAN,
SHAREDEALERS,
CUSHION COURT, OLD BROAD STREET, CITY, E.C.

Members of the Mining Exchange, London.

Closing prices, Friday Evening, April 24:—

Anglo-Brazilian, 16s. 3d.	North Downs, 25s.	20 to 27s. 6d.
Chiverton Valley, 4½	North Wheel Croft, 2½	28
Carn Brea, 26s. 9d.	Prince of Wales, 51s. 9d.	53s. 6d.
Chontales, 2½	Providence, 27	28
Chiverton Moor, 6	South Caradon, 33s.	40s.
Cook's Kitchen, 11½	St. John del Rey, 20½	21½
Don Pedro, 13½	Stray Park, 2½	3½
East Caradon, 35s.	Tincroft, 14½	15
East Grenville, 38s.	West Chiverton, 64½	65½
East Lovell, 8½	West Caradon, 6½	7½
Frontino and Bolivia, 11s.	West Wheel Seton, 20s.	210
Great Laxey, 16½	Wheel Buller, 9½	10½
Great North Downs, 3½	Wh. Emily Henriteta, 40	42½
Great Retallack, 2½	Wheel Grenville, 38s.	40s.
Great Wheel Vor, 18	Wheel Mary Ann, 21½	22½
Herodsfoot, 37½	Wheel Seton, 75	77½
Marke Valley, 6½	Wheel Trellaway, 8	9

Messrs. WARD AND JACKMAN are DEALERS in all the above at the close market price of the day.

Messrs. WARD AND JACKMAN will forward a correct list of closing prices and statistical information GRATUITOUSLY on application.

Messrs. WARD AND JACKMAN beg to refer to their remarks on page 363, April 24.

Bankers: London and Westminster, Lothbury.

MR. T. ROSEWARNE, 81, OLD BROAD STREET,
LONDON, has BUSINESS in the following shares for cash, account, or time only:—

Bedford Consols.	East Caradon.	Okel Tor.
Bedford United.	East Carn Brea.	Prince of Wales.
Chiverton Moor.	East Lovell.	West Prince of Wales.
Chontales.	Gawton.	West Caradon.
Cliffole.	Marke Valley.	West Drake Walls.
Devon Consols.	North Croft.	Wheel Seton.
Drake Walls.	North Treskerby.	

OFFERS WANTED FOR—
Crelake, Gunnislake (Clitters), Wheel Crebor.
Colquhite & Callington, Lovell Consols, Wheel Emily.
East Russell, Old Gunnislake, Wheel Prosper.
Glasgow Caradon, South Grenville, Wheel Kitty.

Great South Chiverton, Wheel Agar.

PRINCE OF WALES.—I am prepared to deal in any part of 1000 shares in this mine for time on, cash, or account at market prices. Parties (from whom references will be required) desirous of dealing in these shares can be dealt with upon advantageous terms for the end of the present year.

T. R. is a SELLER of St. John del Rey for time on below the present market prices; also of Don Pedro, and Frontino and Bolivia.
T. R. can recommend three mines safe for a great rise within the next three months. Money advanced to any extent upon good mining shares.

Bankers: Bank of England.

MR. G. D. SANDY, STOCK AND SHAREDEALER,
No. 45, THREADNEEDLE STREET, LONDON, E.C., TRANSACTS BUSINESS IN EVERY DESCRIPTION OF STOCK EXCHANGE SECURITIES, MINING AND FINANCIAL ENTERPRISES, at close market prices.

NEW LOVELL.—Mr. S. having had this mine specially inspected is in a position to give reliable and most important information concerning this property. Parties interested should apply at once.

Correct Daily Price List can be had on application.
Money advanced to any amount on legitimate stocks and shares.

References exchanged.

MR. EDWARD BREWIS, PALMERSTON BUILDINGS,
34, OLD BROAD STREET, LONDON, E.C., has FOR SALE, free of commission:—15 Lucy Phillips fully paid; 10 Don Pedro, £17½; 5 East Carn Brea, £1½; 10 Chiverton Valley; 5 Maes-y-Safn, £28; 5 St. John del Rey, £20½; 5 Great Vor, £18½; 20 Wheel Emily Silver, £1½; 5 Gothic, £1½; 1 Wheel Seton, £75; 10 Chontales, £2½; 40 Frontino and Bolivia, 11s.; 15 Great Rhosemor; 20 West St. Ives, 5s. 6d.; 50 West Godolphin, 18s. 3d.; 20 Prince of Wales, 51s.; 1 Minera, £18s; 5 Great Laxey, £17½; 10 North Croft, £2½; 20 Rossa Grande, 12s. 6d.; 15 Port Phillip, £1½; 10 Pestarena, £2½; 25 Rose and Chiverton, 11s. 9d.; 15 West Wheel Seton, 21s. 6d.; 50 Gt. Alan, 7s. 3d.; 10 Colquhite and Callington United; 20 West Kitty, 7s. 3d.; 5 Carnarvonshire Consols, £5; 15 West Drake Walls, 8s. 6d.; 40 Central Snailbeach, 17s. 3d.

MR. CHARLES THOMAS,
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

Second Edition, price One Shilling; post-free, fourteen stamps.

MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE PRINCIPAL MINES AND MINING DISTRICTS OF CORNWALL AND DEVON.

Published by CHARLES THOMAS, At No. 3, Great St. Helen's, London, E.C.

MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE,
LONDON, E.C. (Members of the Mining Exchange), STOCK AND SHAREDEALERS, transact business in all kinds of securities at closest net prices for cash or account.

SPECIAL BUSINESS IN East Caradon, Snafell, Great Laxey, and Minera shares, for cash, or the fortnightly settlement.

Daily price list on application.
Bankers: London and County Bank.

MR. HENRY MANSELL,
STOCK AND SHAREDEALER,
No. 44, THREADNEEDLE STREET, LONDON, E.C.

References exchanged.—Member of the Mining Exchange.
Bankers: London Joint-Stock Bank.

GRANVILLE SHARP AND COMPANY,
STOCK AND SHAREDEALERS, 32, POULTRY, LONDON, E.C.

Are in a position to BUY and SELL SHARES in the FOLLOWING MINES, at the closest possible market prices, nett:—

West Wheel Seton.	West Chiverton.	Wheel Seton.
Chiverton Moor.	Chiverton.	Chiverton Valley.
Wheal Mary Ann.	Providence.	Devon Great Consols.
Wheal Trellaway.	Trumpet Consols.	Wh. Kitty (St. Agnes).
West Wheel Frances.	South Frances.	Great Laxey.
East Lovell.	Wheal Bassot.	East Caradon.
Don Pedro.	Chontales.	St. John del Rey.

WANTED TO PURCHASE, THE FOLLOWING SHARES:—
10 Nangles, 200 East Chiverton, 25 Wheel Emma, 7s.

FOR SALE.—50 Rossa Grande, 13s. 6d.; 50 Indian Carrying (35s. paid), 10s.

Sellers must state number and lowest price for cash, all calls paid-up.

Bankers: London and Westminster, Lothbury, E.C. [Established 1852.]

WHEAL SETON MINE.—A FULL AND RELIABLE

REPORT OF THE PRESENT AND FUTURE PROSPECTS OF THIS MINE will be forwarded to any shareholder upon receipt of 5s. in postage stamps.

Every shareholder should know the real position of this property.

GRANVILLE SHARP AND CO., SHAREDEALERS, 32, POULTRY, LONDON, E.C.

BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS, 2, BUCKLESBURY, LONDON, E.C.

Business transacted in every description of securities at closest market prices, free of commission.

We recommend the immediate purchase of Lovell Consols, Great South Chiverton, East Chiverton, Great Laxey, and Tamar Valley shares. Particulars and price on application.

Our "Investment Circular and Financial Record," forwarded post free on application.

Bankers: London and Westminster Bank.

MR. THOMAS THOMPSON, MINING OFFICES,
12, OLD JEWRY CHAMBERS, LONDON, E.C.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN.

MR. JAMES HUME, STOCK AND SHAREDEALER,
74, OLD BROAD STREET, LONDON, and MINING EXCHANGE.

Every description of shares BOUGHT or SOLD for cash or account.

Shares continued for responsible parties, from account to account, at market prices.

Wheal Mary Florence (Limited).—This mine, from its position, and by force of discoveries, is likely to create much sensation. Its success being already assured, full particulars may be had by applying to Mr. J. HUME.

MATTHEW GREENE, STOCK AND SHAREDEALER,
1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.

The shares in the following mines are worth buying at the present prices:—Tamar Silver-Lead, Montgomeryshire Lead and Barytes, New Cliffole.

Full particulars on application.

Mr. GREENE is now in Wales, visiting the Montgomeryshire Lead Mining District, and will be back in town on Tuesday, the 28th instant.

Bankers: Metropolitan Bank, Cornhill, London.

Tweedy, Williams, and Co., Redruth, Cornwall.

JAMES SCOTT AND CO., STOCK AND SHAREDEALERS,
J. S. and Co. are SELLERS, for cash or the account, of shares in any of the undermentioned mines, at quoted prices, nett:—

Anglo-Brazilian, 16s. 3d.	Great Laxey, £17	Summer Hill, £5 10s.
Bedford Consols, 17s. 6d.	Gt. North Downs, £14.	Tincroft, £15 15s. 17s. 6d.
Carn Brea, £18 15s.	Lucy Phillips, £5 17s. 6d.	West Frances, £34.
Chontales, £3.	Marke Valley, £6 16s. 3d.	West Chiverton, £64 15s.
Chiverton Moor, £6 2s. 6d.	North Downs, £1 s. 9d.	West Caradon, £6 17s. 6d.
Chiverton Valley, £4 10s.	North Treskerby, £1.	West Drake Walls, 9s. 9d.
Cliffole, £3.	North Croft, £2 12s. 6d.	W. Prince of Wales, 12s.
Drake Walls, 11s.	No. Wh. Chiverton, £3 12s.	West Wheel Seton, £210.
Don Pedro, £2 12s. 9d.	Okel Tor, 16s.	Wheal Bassot, £67.
East Carn Brea, £1 2s. 6d.	Pestarena, £2 12s. 6d.	Wheal Buller, £10 10s.
East Gunnislake, £2½.	Providence, £2 10s.	Wh. Chiverton, £2 17s. 6d.
East Lovell, £1s. (ex call).	Port Phillip, £1½.	Wheal Grenville, £2.
East Caradon, £3 15s.	Prosper United, 16s.	Wh. Mary Ann, £22 10s.
East Lovell, £8 8s. 9d.	Prince of Wales, £2 13s. 6d.	Wheal Seton, £70.
Frontino, 10s. 6d. (ex call)	Rossa Grande, 14s. 9d.	Wheal Kitty (St. Agnes), £2 12s. 6d.
Gawton, £3.	South Darren, £1 12s. 6d.	Wh. Trellaway, £8 7s. 6d.
Great South Tolgus, 10s. 9d.	St. John del Rey, £2 10s.	Wheal Ury, £1 s. 3d.
Great Wheel Vor, £18.	South Frances, £20 10s.	
Gt. So. Chiverton, 4s. 9d.	So. Condurrow, 12s. 6d.	

Money advanced on marketable mine shares at 5 per cent. per annum.

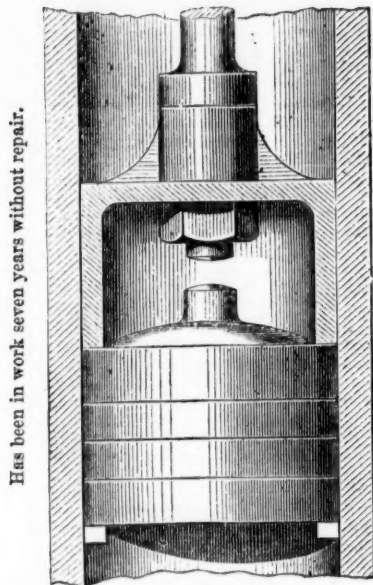
Buyers can have transfers registered prior to payment, if desired, on giving respectable references.

J. S. and Co. are in a position to carry over from account to account any reasonable amount of mine stock at the low rate of 5 per cent. per annum, provided it be paid down within 25 per cent. of the current market value.

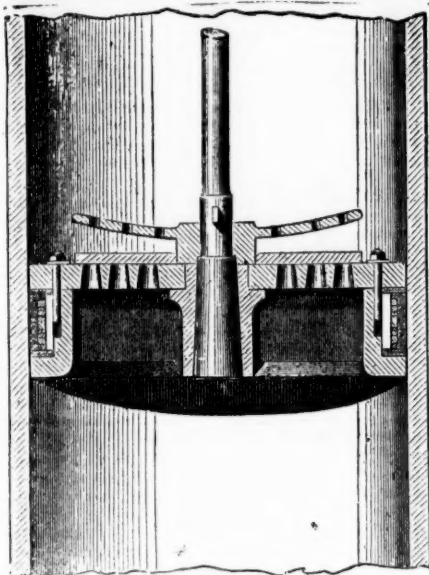
MATHER AND PLATT

MILLWRIGHTS, ENGINEERS, AND MACHINE MAKERS,

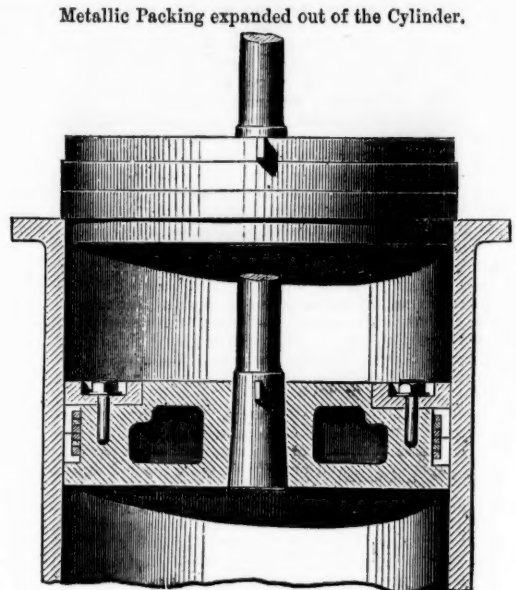
SALFORD IRON WORKS, MANCHESTER.



COLD WATER PUMP FOR DEEP LIFTS.



AIR-PUMP BUCKET.



PISTON IN THE CYLINDER.

MATHER and PLATT beg to call the attention of ENGINEERS and USERS of STEAM POWER to their PATENT PISTONS, AIR PUMP BUCKETS, and COLD WATER PUMPS. The estimation in which these Pistons, &c., are held is shown by the fact that 4760 have been made, as well as by the following Testimonials from gentlemen whose large experience and extensive practice enable them to judge of their qualifications:—

"GENTLEMEN,—During the last 19 years, commencing in 1848, I have put in upwards of 33 of your patent metallic pistons and pump-buckets, into 49 engines and 20 pumps, under my care at the Bridgewater Trustees' Collieries. I can bear testimony to the very efficient and economical working of the same, and feel confident that with ordinary care they will give general satisfaction, wherever brought into use, possessing, as they do, many practical advantages over other pistons and buckets, being simple, durable, and effective. I have one piston (No. 671) which has been working daily for more than 15 years, one (No. 1586) 10 years, and one (No. 2246) over 7 years, without cost of repairs or trouble of any kind, except occasional cleaning. The smooth and highly polished condition of the cylinders during this length of time convinces me that the action of the metallic packing is so equable and perfect as to render the piston steam-tight and self-adjusting, without producing any appreciable friction. I have had two of your patent metallic pump-buckets working daily for over seven years, one lifting 300 feet, and one 348 feet, and both are yet performing good duty. I am now putting in one of 10 inches diameter patent buckets, to work 10 strokes, of 8 feet 4 inches per minute, under a pressure of 12 atmospheres, and feel confident of success, thus showing the superiority over other buckets, more especially where long lifts and simplicity are required. I herewith hand you an order for a 53-inch diameter piston and rod complete, also air-pump bucket, 26½ inches diameter, and rod complete. Hoping you will forward the same to these collieries as early as practicable,

"Messrs. Mather and Platt, Salford Ironworks, Manchester."

"Bridgewater Collieries, Walkden, Bolton-le-Moors, October 26, 1867.

"JESSE TIMMINS, Colliery Engineer.

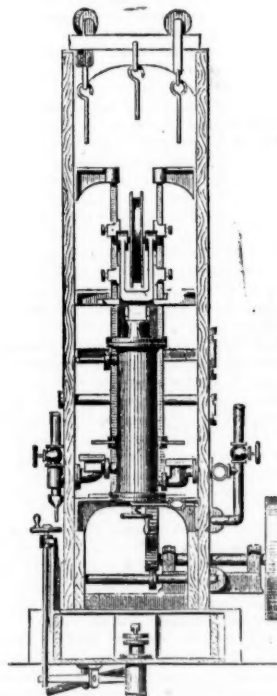
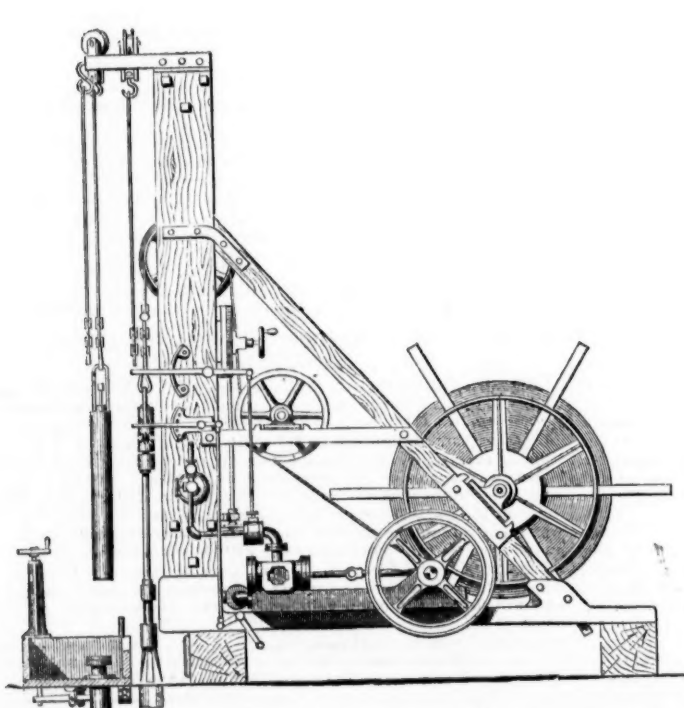
"GENTLEMEN,—I have ordered direct, or included in specifications of engines which I have prepared, upwards of 100 of your pistons and buckets, between the years 1850 and 1867, and I feel convinced they are the best pistons that have come under my notice, and if any proof was wanting as to my opinion of them, it may be found in the fact of my ordering the last 70 inch piston from you for our present works.

"Messrs. Mather and Platt, Salford Ironworks, Manchester."

"Frampton Cottrell, near Bristol, October 31, 1867.

"I remain, Gentlemen, yours truly,

"WILLIAM BAILEY.



M. and P. beg to call attention to their Revised List of Prices of VALVES, TAPS, &c. They also request the notice of Water Companies and Hydraulic Engineers to their IMPROVED SLUICE VALVES for Water. The slides have Gun-metal Facings, are of Wedge form, and when screwed down are tight on both sides:—

No. 1.			No. 2.			No. 3.		
GUN METAL TAPS.			CAST IRON STEAM VALVES, WITH GUN METAL VALVES AND SEATINGS.			CAST IRON SLUICE VALVES, WITH GUN METAL FACINGS.		
Bore. Inches.	Price. £ s. d.		Bore. Inches.	Price. £ s. d.		Bore. Inches.	Price. £ s. d.	
3/8	0 4 0		2	1 2 6		2	1 10 0	
1/2	0 4 6		3	1 17 6		3	2 5 0	
5/8	0 6 0		4	2 15 0		4	3 0 0	
1	0 8 6		5	3 15 0		5	3 16 0	
1 1/4	0 11 0		6	4 17 0		6	4 14 0	
1 1/2	0 14 0		7	5 0 0		7	5 14 0	
1 3/4	0 18 0		8	7 5 0		8	6 16 0	
2	1 2 6		9	8 15 0		9	8 0 0	
			10	10 10 0		10	9 6 0	
			11	12 5 0		11	10 14 0	
			12	14 0 0		12	12 4 0	
			14	20 0 0		14	15 10 0	
			16	27 0 0		16	19 4 0	
			18	35 0 0		18	23 6 0	
						20	27 16 0	
						22	32 14 0	
						24	38 0 0	
						26	43 14 0	
						28	49 16 0	
						30	56 6 0	
						32	63 4 0	
						34	70 10 0	
						36	78 4 0	

Improved Patent Earth Boring Machines

A considerable number of these Machines has been in most successful operation for some years in exploring for mineral coal and the boring of Artesian wells, for supplying many towns, manufactories, &c., with water. Upwards of 50 bore-holes, from 6 in. to 24 in. diameter, representing in all 20,000 ft. of boring, have been sunk in various parts of the world, through rocks of every form and degree of hardness, from the New Red Sandstone to the Igneous formations, as well as Chalk and the London Clay.

The Machine is worked entirely by steam-power, requiring a small boiler, from 6 to 12 horse power, according to diameter of the bore-holes. The framing is made of wood, to render the Machine of easy transport.

The rate of boring is not appreciably decreased as the depth increases, as a flat rope is used in place of rods in the old system.

The attention of those interested in Metallic Mining is called also to an

IMPROVED BUDDLE,
OR
ORE WASHING MACHINE

Which they believe will be found of great benefit

TERMS AND PARTICULARS CAN BE HAD ON APPLICATION.

Original Correspondence.

ON STEAM-BOILER EXPLOSIONS—No. I.

SIR,—It is impossible to avoid noticing those disastrous occurrences which occur at short intervals in most colliery and manufacturing districts in this country. Many volumes and papers have been written on the subject, and many scientific investigations made. Even a concise abstract of the papers published, and a description of the various patented inventions, which have been brought out for the prevention of boiler explosions would form a good-sized volume. Some have attributed the bulk of boiler explosions to some mysterious cause, as the formation of gas, &c., or to the exertions of great expansive force during the change from water to the form of steam in the boiler. I have no doubt that many of the readers of the Journal are well acquainted with all the branches of this intricate subject, but at present I wish to direct attention to some very practical matters connected therewith.

The number of lives lost by those explosions is considerable, and very serious, while the loss of property has certainly been in many cases enormous. The explosion of a single boiler has in certain cases, which could easily be pointed out, entailed a loss upon the owners of 2000*l*. The loss has, indeed, varied much, but ranged at collieries from 1000*l*. to 3000*l*. In connection with many explosions it is quite obvious that they occur soon after the boiler has been under repairs, and only just got to work again. The reason given for this remarkable coincidence is that the old and new work expands unequally. This conjecture, perhaps, has some foundation, and, if so, great caution ought to be used in heating a boiler after repairs, and in all cases where cooling has taken place during cessation of work. Care ought also to be taken in connecting any boiler where steam has just been got up—that is, the connection ought not to be made suddenly if any great difference exists in the amount of pressure in the various boilers. The sudden introduction of steam into a boiler at a higher pressure, and consequently higher temperature, than that already contained in the boiler, must be attended with considerable danger, and ought to be avoided, if possible; at any rate, much caution should be used in such a case.

It can hardly be doubted that the "technical" education of engineers, firemen, and others would tend most materially to reduce the number of boiler explosions. But it must not be forgotten that the age of a boiler is a most important element of the question, and to work a boiler after it has become through age and use dangerous is the worst policy. It is not only dangerous so far as the lives of men are concerned, but it is a most wasteful course, and entirely opposed to true economy, as there is a danger every moment of losing, not the price of one boiler (say, 100*l*.), but ten or twenty times that sum. It is quite clear, I say, that this is a most wasteful process. M. E. Gateshead, April 21.

THE SHROPSHIRE COAL FIELD—No. III.
FORMATION AND DENUDATION OF STRATA.

SIR,—In treating of the Shropshire Coal Field, let us again look at the foundation before proceeding to examine the superstructure raised upon it. From what has already been advanced, the reader will perceive that good ground exists for supposing that at the close of the Silurian period these recently-formed beds were raised above the sea level, and that dry land existed; indeed, the fact that denudation had been going on to the extent indicated by the missing strata, and unconformability of the two groups of rocks, implies as much, whilst the fossil trees *in situ* at the base of the coal measure formation in Coalbrookdale proves that dry land, or land at least suited to the character of the carboniferous flora, really did exist. The fact is the first and oldest bit of this British Island, the first rocky headland to rise above the dominion of Neptune, and to defy the ravages of the Silurian sea, yet remains, furrowed into curious forms by waves which have at successive, but far off, periods lashed its sides. The Longmynd, flanked by the rich mining grounds of the Welsh borders, was unquestionably good, dry, solid ground ere the first scrap of terrestrial vegetation made its appearance, and at a time when the wide waste of waters, which swept its sides, was but very thinly peopled with inhabitants. Against this primitive old world sea-resisting cliff, Silurian seas subsequently laid down their sediment, together with those successive forms of marine life, which afterwards multiplied and increased so abundantly. But we have only to do with those which serve to conduct us up by stages to the coal measures themselves, and in which Nature has, as we have seen, defaced some of her pages, and torn out others from that great stone book on which she had inscribed her history.

One of these gaps, we have already said, is indicated by the unconformability of the Silurian flooring, to form which generation after generation of living forms toiled and died, and contributed their various habitations to the work. Through periods of long duration forests of corinoids flourished upon their slender shafts, spreading their little nets for food, and bowing their heads at the pressure of the passing wave. To millions upon millions of these flower-like creations were added the chain and other coral forms, the relics of which lie like autumn leaves upon the weather-beaten limestone banks; also that curious class of floaters—the orthocerites—the first of chambered shells, the curled ammonites, and the still higher class of crustaceans. To fill up the gap that succeeds this Silurian flooring and the coal measures, to study the intermediate links of missing strata, we must go to the Upper Ludlow rocks, to the passage beds connecting them with the Old Red Sandstone, and compel the "bone beds"—those graveyards of a missing fauna—to become witnesses of the ravages committed by denudation. It is no part of our present business, however, to produce these lost links, and we pass on to observe the character of some of the coal measures themselves, and the order in which they lie.

Since our last we have seen a section by Mr. Beete Jukes, showing how the coal measures rest upon denuded strata of Silurian shale near Trindle Gate, just east of Dudley. The shale lies horizontally, and is described as ending in a moderately sloped cliff, against which the sandstone of the coal measures abutted, while they reposed conformably and horizontally on other beds of shale, which continued beneath them. Where the lamination of the sandstone met the Silurian cliff it became oblique, from conforming to its slope, whilst near to the cliff, and for some yards from it, were pebbles, mostly of white quartz, and some rolled pieces of ironstone. As Mr. Jukes remarks, in this special case we see the nature of the relation between the coal measures and the Silurian rocks of the South Staffordshire coal field; we see that the Silurian rocks were greatly denuded and worn away, and cliffs and hollows formed in them, on, against, and over which the coal measures were deposited. Mr. Jukes also speaks of some of the lower coal measure beds being of a red colour, which he says might have led to a speculation that the Old Red Sandstone came in, but for the fact that the true coal measures are known to exist both above and below. It is surprising how very closely this description of the lower coal measures answers to the state of things at Lincoln Hill. The first few feet of strata above the Wenlock limestone at Lincoln Hill consists, as we have shown, of sandstone and pebbles, succeeded by coal and ironstone seams, not worth working. The first workable seam of coal met with is the "Lancashire Ladies," and the first workable ironstone is the Crawstone, both being uncertain, and by no means continuous throughout the field. But the mass of sand and gravel first drifted in upon the denuded surface of the Silurian beds was chiefly quartz, which became so cemented together by the same silicious material as to form a very hard rock. Here and there, a little above, the beds are more coloured, from an admixture of protoxide of iron, and a little reddish purple mud occurs, the spoil, no doubt, brought from some Old Red Sandstone cliff, then remaining above the waves on the south. The same waves appear to have brought a portion of vegetable or mineral matter also, for in the beds now being quarried, beds which connect the two series of rocks, we observed only last week blocks of sandstone of a deep brown colour, strongly impregnated with a substance resembling petroleum.

It may be interesting before proceeding further to notice some of the first forms of vegetation as they make their appearance in this coal field, and which evidently grew and flourished in places where their remains now are found. They were those curious aquatic plants whose roots are so familiar under the name of *Stigmaria*, plants

which appear to have found suitable soils in the mud, or silt, of the lagoons left by the retirement of the Silurian sea: it is quite certain that they were not floated here with the material forming the shale and sand rock in which they are found, but that they grew and became entombed in the sand, which even now retains the most beautiful casts of their slender spiral rootlets. As we proceed, however, we shall find evidence to show that whilst some of the Shropshire coal seams were formed of vegetation which first flourished in wet, boggy situations, and was then succeeded at intervals by mud and sand drifts that covered it up, others were the result of vegetation which flourished on high grounds at a distance, and which then was carried down by streams, and buried where we now find it. At present we have chiefly to do with the fact that the sea bottom was at the period alluded to sufficiently elevated to allow of the growth of vegetation, and with the evidence that by some means or other these plant-growing flats were subject to freshets, which brought burdens of sand and mud, which they spread over them. The fact of this sediment having been so fine, with so few pebbles intervening, and its being so free from any remains which imply a marine agency, bespeaks not only a large extent of high land to supply such denuded material, but also the existence of great rivers, which, descending from mountainous districts, laid down the coarser portion of their gravel upon their waters being checked, and then spread out over alluvial plains the finer portion of the transported material.

It is thus that some of the ironstones were formed which have contributed so much to the wealth and activity of this district. To understand their formation we must consider it as having first existed in a state of sediment, brought down by rivers in times of flood, and thrown at their embouchures either upon plant-growing flats or upon beds of inland lakes, where heaps of vegetable soil, brought in a similar manner, lay undergoing decay, and where it met with conditions suitable for the production of carbonate of iron, such as we now find. Mr. Hunt, Keeper of Mining Records, having instituted a series of experiments to illustrate the production of these clay ironstones, shows how decomposing vegetable matter prevents the further oxidation of the protoxide of iron by taking a portion of its oxygen to form carbonic acid. He says—"Under the conditions necessary for the production of the coal distributed among the associated sand, silt, and mud, the decomposition of the vegetable matter would necessarily form carbonic acid among other products; this carbonic acid, mixed with the water, would spread with it over areas of different dimensions, according to circumstances, forming salts and meeting with the protoxide of iron in solution, it would unite with the protoxide and form a carbonate of iron. The carbonate of iron in solution would mingle with any fine detritus which might be held in mechanical suspension in the same water, and under favourable conditions would be thrown down mingled with the mud, hence the rich nodules of ironstone now sought after. It is surprising how few fossil remains other than plants occur in the lower measures, looking at the vast number of preceding and also of immediately succeeding periods. Very few specimens, indeed, of animal remains occur in these river-borne sediments, but a beautiful species of a freshwater cypris, a bivalve of a similar genus to those found in modern ponds and lakes, appears to have swarmed around the decaying plants. They appear to have remained unaffected by the process going on around them, by which vegetation was converted into coal, and loose sand into hard rock; for their little polished coverings look as bright and brown as when they contained their living forms—a million of ages since. JOHN RANDALL, F.G.S.

COAL-CUTTING MACHINERY, AND THE PATENT LAWS.

SIR,—The announcement in last week's Journal of three new applications for patents for coal-cutting machinery affords a very reliable proof that none of the machines yet brought forward are worthy of being considered perfect, more especially as the applications are all made by gentlemen whose names are well known in connection with the same class of invention. To the public and the patent agents this may be no disadvantage, but I think that it shows that inventors are compelled to pay enormous amounts to protect useless inventions, the consequence being that the inventor who really does discover anything useful is interfered with by the existence of innumerable patents for inventions which it would be impossible to apply to any practical purpose. I also saw in last week's Journal that the Inventors' Institute and several other societies are going to seek the amendment of the Patent Laws; but, upon reading their catalogue of evils, and remedies for evils, I think that the Inventors' Institute would promote the inventor's interest much more by agitating for the abolition of the patent laws altogether. The Inventors' Institute has always based its operations upon a fallacious argument—that the rights of inventors and the rights of authors would be more closely assimilated by giving additional privileges to inventors, whereas the fact is that it is because the law has already attempted to give inventors more privileges than can be secured to them, or than they are entitled to, that inventors have so much reason to complain.

If the Inventors' Institute would endeavour to understand the interests of their members, they would learn that what inventors want is to have less promised to them, with the security that what is wanted will be given. They say that authors have the privileges already which inventors desire, which is, no doubt, true, although the privileges which authors possess are certainly not those asked for on behalf of inventors. If a man writes a book on chemistry, for example, he has a copyright in that book, but not in all works on chemistry, and so strictly is this carried out that, even if the book describes something entirely new and unknown, there is nothing in the law of copyright to prevent another author from competing with him by publishing another book on the same subject, and embodying the same ideas. As an example, I will refer to "Dual Arithmetic," which has been invented and described by Mr. Oliver Byrne, and which is claimed to possess the enormous advantage that calculations can be performed by it which are impracticable by other means. Now, supposing that I learn this new system of dual arithmetic, the law does not prevent me from writing a treatise upon it, although, if I be also an arithmetician, the probability is that I shall be able to produce a better book than the original, and displace it. Upon the same principle, Mr. Byrne's second edition would be better than my first, and so on until perfection is attained. Mr. Byrne retaining for ever the honour of the discovery, but receiving profit only in proportion to the utility (according to the estimation of the public) of his labours in securing the object aimed at—that of enabling the public to derive practical advantage from his discovery. With works of fiction the same argument applies, but the author's profit depends upon the amount of pleasure, not of advantage, which the public derive.

Now, to place inventors upon the same footing as authors (and this I conceive to be most desirable), the Patent Laws must be at once abolished, and an extended system of designs registration substituted, and there would then be no reason why invention-right for 42 years should not be secured by simple registration at the same cost (5*s*.) as copyright is now granted. But this would be going a step too far for the patent agents and lawyers, and we, therefore, have such schemes as that of the Inventors' Institute, for paying fees by instalments, examining inventions before granting patents, and for doing various other things, the effect of which would in practice create greater evils, and render the hardships inventors have to bear tenfold greater than at present. If we really substitute invention-right, such as would be secured by designs registration for the patent system, which even the Inventors' Institute admits is cumbersome, exorbitantly costly, affords imperfect security to the inventor, and leads to expensive and vexatious litigation, there will be no necessity for "instituting a special tribunal for dealing with disputed questions of invention-right," and every inventor will be rewarded according to his merit. If any evidence be required of this, I need only refer to the numerous inventions (for they are quite as much inventions as those which now form the subject of patents), and request those who would bolster up the iniquitous Patent Laws by attempts to amend them, to point out a dozen cases in which designs registration has led to the evils complained of in connection with patents.

As to the coal-cutting patents, which may be taken as a fair sample of the "expensive, vexatious, and cumbersome character of the litigation attending disputed questions of patent right," I think that even those most infatuated with the Patent Laws will admit that not one of the inventions protected is of practical utility, although each is obstructive to other inventors. Now, had each of the contrivances been registered as a design only, and, in truth, they are nothing more,

(as was admitted at the trial of Firth against Ridley), the litigation would not have taken place, the whole of the inventors now working in direct opposition to each other would have been engaged in healthy competition with the money uselessly wasted in patents and litigation at their disposal for perfecting the invention, and the public would long ere this had the advantage of a practically useful coal-cutting machine, which may now be unattainable for the next ten years, owing to each inventor being compelled to avoid every idea which has previously been claimed, no matter how vaguely, under the Patent Laws. No one desires more than myself that inventors should be secured all the protection they are entitled to, but I am convinced that patents, except in the shape of protection of designs, are alike prejudicial to inventors and the public. It is quite as easy to protect the inventor, if not infinitely more so, without the Patent Laws than with them. They should, therefore, be abolished at once, and every inventor should be protected for one particular invention and no more, by simple registration and a five-shilling fee. To prevent invention-right being secured to prevent the working of a process, it should be provided that twelve months' disuse should make it public property, and general designs should be invalid—that no one should be permitted to secure an invention-right for "a combination of acids and alkalis," but he might secure such right for a "combination of carbonate of ammonia and hydrochloric acid" for any particular purpose, as that would leave (say) "carbonate of soda and hydrochloric acid," or "carbonate of potash and nitric acid," for the same purpose, provided it were found equally applicable, or even an inferior substitute for the original compound. Such rights would not be obstructive; they would place the proprietors of mechanical, chemical, and industrial inventions in the same position as authors, and the inventor could afford to grant the right to use his discovery at a price that would make it not worth the while of anyone to defraud him. By this means all classes would be benefited, both socially and pecuniarily, including the now over-protected individual, the— INVENTOR.

STEEL FROM PIG-IRON.

SIR,—I have been manufacturing and selling cast-steel, possessing all the qualities named by Mr. Miller in last week's Journal, ever since Oct., 1849, this cast-steel being prepared direct from pig-iron. Some years after I had carried my process into practical commercial operation a travesty upon it appeared, called the "Uchatius," or Atomic Patent process, which was so far atomic that it never did an atom of good in the manufacture of steel. So I had sixteen years the start of the Coalbridge manufacturers. ROBERT MUSHET. Cheltenham, April 20.

THE TIN TRADE.

SIR,—As it may be interesting to the readers of your Journal to know the exact production of tin from the mines in the Island of Banca, I beg to inform you that for the year 1867 it has been 70,285 piculs, or 140,570 slabs, equal to about 4260 tons.

The production for the last eight years has been as follows:—

1867	140,570	slabs, equal to 4260 tons.
1866	138,626	" " 4807 "
1865	138,012	" " 4182 "
1864	161,916	" " 4907 "
1863	191,962	" " 5817 "
1862	140,770	" " 4266 "
1861	173,008	" " 5243 "
1860	165,620	" " 5019 "

Rotterdam, April 20.

L. TH. VAN HOUTEN, Broker.

IMPROVEMENT IN LEAD SMELTING.

SIR,—A few weeks ago I saw in the Journal the enquiry of "Mining Engineer," and of Mr. Charles Pengilly, for particulars about an improved ore hearth, said to have been invented at Lead Hills. As the reply of "M. E." was, I think, very unsatisfactory, and Mr. Charles Pengilly has not replied to it at all, I take the liberty of supplying "F. W. P." with a few particulars on this subject from my note-book.

On my seeing the letter from "Mining Engineer" (?), some little while ago, I was induced to take steps to satisfy myself as to the truth and value of what he stated, and I dare say "F. W. P." will be somewhat surprised when I tell him (what probably, it may be, though, he inferred from the very curt and suspicious reply of "M. E.") that the thing so extolled is a "myth," and that it, and the great doings proclaimed of it, exist only in the imagination of "M. E." and his accomplices. All that can be discovered at these works is an old Scotch hearth, built with the large solid lumps of cast-iron, weighing about 50 cwt., set on solid masonry work, and enclosed with masonry; and the "great invention" is a projection, a little further inward than usual, of the casting set over the blast-pipe. But even this slight modification, which appears to be quite new there, is a very old plan in some of the smelting-works in the North of England, and may or may not be an advantage—there are arguments both for and against it. They smelt from 20 cwt. of ore (assaying up to 78 per cent.) on this famous hearth from 11 cwt. to 13 cwt. of lead (running from 17 cwt. to 22 cwt. of lead in a shift of 10 hours), and they consume not less than 12 cwt. of coal and 8 bushels of peat in a shift for their best ore; and as to its continuousness, being of the build described, "F. W. P." if a practical man, can easily judge of the length of time it would be proper to continue it in work if good lead were a leading object. I think 10 hours at a time quite enough for it.

Judging from the very primitive state of things as a whole at this place, there is great scope for improvement before they are on a par of efficiency with the smelting works in the North of England. The address by which "F. W. P." will find the works where this old English plan has been adopted, and announced to the world as an "important invention," is Lead Hills, Dumfriesshire, Scotland; and should he visit them, with sufficient good luck to gain admission and find the object of his search, I shall be glad to hear through the Journal how he finds things to agree there with these few extracts from my note-book.—April 22. OBSERVER.

THE PROGRESS OF MINING—AS A SCIENCE, AND SOURCE OF COMMERCIAL WEALTH.

SIR,—Glogfach Mine, in Cardiganshire, was the first mine in that county to which a steam-engine was applied for the purpose of pumping the water. This mine is situated about 15 miles south-east of Aberystwith, on a high hill on the south bank of the River Ystwith, it being nearly 1000 ft. above the river. A small direct-acting steam-engine was erected on this mine about 40 years ago. About 30 years since the watercourse was made to Logylas from Llynfyrddyn, passing over the Esgaer-y-Mwyn and Glogfach mountains. This stream was taken advantage of, and the costly process of steam pumping abandoned; but all pumping power will shortly be rendered useless in this mine to the depth of 120 fms. from surface, by the Logylas deep adit, which has been driving at intervals for nearly 70 years, and will soon cut into this vein, and form an everlasting drain to the depth of 260 yards perpendicular. This, when complete, will form the greatest adit in Cardiganshire, and by being continued further southward would unwater the Glogfach and the Esgaer-y-Mwyn Mines to a great depth. In passing, it is well to remark that no persons in their sober senses would now-a-days think about projecting a work of this kind, that would take 70 years to accomplish, as the deepest shaft opened by it could be done by means of machinery in five or six years; but now that it is nearly complete it is an invaluable piece of engineering, and most likely hundreds of thousands of pounds worth of ore will be obtained by means of it. The Glogfach ore is a rich, solid lead, containing a great deal of silver, now worth about 16*l*. per ton. When the mine was undertaken, 30 years ago, Skinner's, the westward and deepest, shaft was sunk by means of flat-rods to the 46 fm. level. The company took up this shaft and continued it to the 56. It is necessary to state here that a good course of ore, 40 fms. long and 2 ft. wide, had continued from the surface, but was evidently waning in depth. In the 56 fm. level it was only 12 ft. long and 6 in. wide, and this fact was used as an argument, by those who were favourable to that way of reasoning, to prove that the bodies of ore in Cardiganshire declined in depth; in fact, it was quoted and used as a triumphant refutation of all opinions to the contrary, and the mine was abandoned or suspended, and it continued in this state for many years, until pressure from Lord Lisburne caused the works to be resumed, and by the sinking of Skinner's shaft a few fathoms the lode again opened out to its former value. In this fact we have an instructive lesson with respect to abandoning mines too

soon, or coming to general conclusions without the necessary proof. Guided by this light, it is not unreasonable to suppose that, should the present body of ore, now so profitable, decline, by sinking deeper other courses of ore of equal value may be met with, and that the Glogfawr and Esger-y-Mwyn lodes, by a parity of reasoning, may, in all probability, hold great and profitable masses of lead far below any of the present workings. For miles to the west and east of this point these lodes are to be seen cropping up in the rocks of Ystannu-muric and Cwmystwith, bearing lead ore at the very surface; and it is only reasonable to suppose these are true indications of good mining ground. The Glogfawr Mine in modern times was discovered by the country people while cutting turf, only at the depth of a few feet, and immediately under the turbarry they came upon large solid masses of lead ore. This must have taken place about 50 years ago. The fact was related to me by old miners, who saw the old trenches, which had some very ancient mining tools in them. There was a dispute about the ground, as Lord Lisburne was said to have let it to two parties, and possession was only kept *vi et armis*, and by the consumption of a large quantity of porter, which was delivered on the spot in barrels; and the tap was kept going day and night with great regularity, until one of the contending parties found it too hot to keep up the contention, and the mine has been worked profitably at intervals from that day to this, owing to its solidity and silver. This is, perhaps, the most profitable ore in Cardiganshire. M. F.

IMPROVED PROSPECTS OF MINING.

SIR,—I am glad to see mining beginning to wear a brighter aspect. The commercial panic and crisis is rapidly becoming a thing of the past; confidence is being restored, and all business people seem to be actuated by fresh hope and energy. The exaggerated statements made by a certain part of the community, who sought popularity thereby, who are remarkably fond of having the power to give from the pockets of other people, are beginning to lack credence. That great philanthropic movement, "The Cornwall County District Fund," established to keep the bodies and souls of some many thousands of starving people together (while the parish rates were only at the average rate of several years past) has during the whole time of its existence been able to get rid of only 22,151, 15s. 3d.; and although its managers have amused themselves by giving hundreds of pounds to people who desired to emigrate, amounting in some cases to 121, 10s., and even to 151, per head, it has in hand nearly one-half of all the money which it has begged from the world, and how to dispose with which forms an enigma hard to solve. But although it is evident that times were not so bad as represented, it is true that we have much better prospects of prosperity than we had two years ago. The price of tin is 17s. per ton more than it was a year and nine months ago, and the price of copper ore has considerably advanced within the last few months; and although it may be a long time before we shall obtain the high prices for minerals which prevailed three or four years ago, I feel sure we can have nothing to fear if our mining is conducted on a fair and legitimate basis; if the agents in mines can be allowed to purchase the best articles in the cheapest markets, see they have the quantity they pay for, and sell their produce to the highest bidder. The last meeting at Wheal Seton ought to go some way to open the eyes of adventurers and merchants, and direct their attention more especially to merchant committee men. It is a monstrous fact, as at the place mentioned, that one committee man should sell to another the property of the adventurers; and the proof of the honesty of such transactions may be reckoned from the fact that one little pile of arsenic, only 70 tons, thus disposed of was sold for 781, 15s. less than a price that was offered for it, and that in the same mine the adventurers should discover after 30 years' working that they never had scales to test the weight of the material brought on the mine. But if we let the past go, as we cannot recall it, and begin afresh, mining has nothing to fear.

It will be found throughout the country that parties who monopolize the supplies and produce of our mines do not hold more than one-twentieth of the shares; and, of course, they charge their own prices, and make hay while the sun shines. But when people pay for coal they must not be supplied with rubbish, and the prices should in all cases be ascertained before cashing, &c., are received on the mine. I give the following to show the disposition of parties to charge low prices. Since North Wheal Crofty account, the agents advertised for tenders for a 28-in. cylinder and a few connections belonging thereto, and the tenders received from three highly respectable firms were as follows—3171, 2881, 10s., and 1961, when, of course, the lowest tender was accepted. Now, if people will thus expose their love for being paid so much above a fair price when tendering, what sort of a price would they charge if they had an order with nothing said about the price as in most mines? Had that been done in this instance, I think the adventurers would have but little change, if any, out of 4000.

Redruth, April 22.

ONE AND ALL.

PRINCE OF WALES MINE.

SIR,—Having been applied to in consequence of an advertisement which appeared in the *Mining Journal* of last week, in reference to a detailed report of this mine, will you permit me to state that, as I have not had an opportunity of inspecting the operations since the laying open of the discovery at the 55 ft. level, I have had no means of arriving at any opinion as to the future prospects, other than the highly favourable one which I am enabled to form from a weekly perusal of the trustworthy reports of the agents of the company.

Devon Great Consols, April 22.

JAMES RICHARDS.

Meetings of Public Companies.

BAST WHEAL RUSSELL MINING COMPANY.

The quarterly general meeting of shareholders was held at the company's offices, Austinfriars, on Thursday, Mr. J. H. MURCHISON (the secretary) having read the notice convening the meeting, the minutes of the last were read and confirmed. The statement of accounts showed a cash balance of 1571, 15s. 11d., and a balance of liabilities over assets of 3334, 13s. 6d. The agent's report was read, as follows:—

April 21.—I beg to send you the following report of the present state of the mine for the consideration of the general meeting, to be held on the 23d inst. The winze in the bottom of the 66 has been communicated with the 77 some time since, and four men are now stopping the lode east of the winze, which is worth 41, per fathom. In the 88 the north lode was intersected by the cross-cut, where we expected it, and found it to be 2½ ft. wide, and although discovered by the elvan ane at the point of intersection, contained some good ore. The 88, west of the said cross-cut, being driven by two men, at 31, 2s. per fathom; the lode in the present end is 2 ft. wide, and contains friable quartz, prill, mundle, and stones of ore. The lode in the 88, east of the cross-cut, is 2½ ft. wide, containing capel, quartz, peach, mundle, and stones of copper ore; now driving by two men, at 21, 15s. per fathom. The cross-cut in the 100 has been extended about 9 fathoms, and intersected the north lode, and found to be where it is cut through 2½ ft. wide, and with 1½ ton of ore per fathom. About a fortnight ago we commenced to drive east and west on its course by two men in each end; in the eastern end the lode is 3 ft. wide, and produces stones of ore only at this time, being now in the elvan; it is, however, very kindly, and will improve again doubtless as we advance out of the influence of the elvan. In the western end the lode is 2½ ft. wide, and will yield 1½ ton of ore per fathom; now driving by two men, at 31, 10s. per fathom. The 120 is being driven east of the cross-cut, on the course of the south lode, by four men, at 21, 15s. per fathom, which is fully 2 ft. wide, containing friable quartz, prill, mundle, and good stones of ore, a very promising point. The 140 is being driven east of the cross-cut, on the course of the south lode, by four men, at 31, 3s. per fathom; the lode is 18 in. wide, containing quartz, peach, prill, a little mundle, copper ore, &c. We have six men engaged driving by the side of the run in the 120 east, and we will get through it as quickly as possible, as to resume the driving on the course of the north lode, east of Davey's cross-cut, which is 4½ ft. wide, and presents strong indications for an early and good improvement whenever that operation may be resumed. There is also a little run in the 140, east of the cross-cut, which will be got through as soon as we can do so. We have cleared out and secured the adit level and shafts on the north lode, near the north boundary, nearly 200 fathoms; the lode in this drive is in places 1, 1½, and 2½ ft. wide, and, unbedded in a fine channel of mineralized till, containing some good gossan, prill, quartz, capel, mundle, and a little black oxide, grey, and yellow copper ore. In the present end the lode is 2 ft. wide, and kindly; the men are now engaged clearing up an old shaft, which will come down near the present end, so as to ventilate the level, and expedite the work as we drive east. I consider this part of your property to be a good speculation, provided it be properly developed. The water was all forked out of the mine about a month since, and although there is some little damage done to the 130 and 140 about the slide, I am glad to say the pitwork has been all recovered; and, with the exception of some slight repairs, Homersham's shaft has been found to be uninjured. I would note here, that through the north lode not having held down good in the winze in the bottom of the 66 more than about 6 fathoms, and the tribute pitches not having turned out so well as we expected, the result of the past quarter's operations have not been quite so good as we had a reason for anticipating from the prospects of the mine at the time I made my last quarterly report; we have, however, now in operation several points on the course of the lodes, and as the ground is easy for progress, I consider there are very fair chances of the lodes becoming productive as the levels are opened out towards and east of the slide; and I would observe that the south lode from the 88 to the 110 has produced a good deal of rich ore. I entertain a strong opinion, therefore, that when this lode is opened out near to and east of the slide in the 130 and 140 ft. levels, good deposits of ore will be met with. The plans of the mine will be laid before you, by which you will see the position of the various points now in operation and those in contemplation. We shall sample in the beginning of May 70 tons of ore, and expect to raise about 70 tons more before the next meeting, at a cost of about 5101, per month.—WM. RICHARDS.

Capt. RICHARDS, in explanation of the different points of operation by the working plan, said that the elvan course was 9 ft. wide. The lode, in his opinion, at this point was whole to surface; in fact, it was entirely new ground to surface. The middle lode, in the 100, is worth for ore 1½ ton per fathom, and likely to be in whole ground to surface also; the 130 was the main point of the present working, and it might take a fortnight more to come under the 88 and 100 ft. levels. The adit on the north lode is cleared to the old shaft, and the further this adit was opened out the greater the depth on the lode, and the better the backs opened out. At Old Wheal Russell, on a parallel lode, at 16 fathoms deep, they had a lode worth 6 tons per fm.; these lodes were precisely similar, and he (Capt. Richards) thought that in a little further driving east they would

meet with similar results. The lode in the district generally made ore shallow. At this point they would require water-power, which could be obtained on application to the Duke of Bedford, and paying a small water charge; and it would be necessary to erect a 60-ft. water-wheel.

Mr. MILFORD asked Capt. Richards whether the working cost could not be reduced, the estimate of ore being only about 4001, while the cost exceeded 15001. Capt. RICHARDS thought not, while the present points of operation were being developed.—Mr. PETER WATSON said that during the past four months the mine had been under water; they had now got the water out, and were getting ore in the 130 fathom level.

Mr. MILFORD thought that the working cost might be reduced.—Captain RICHARDS said that the cross-cuts were entirely in dead ground, and at any point most important discoveries might be made.—Mr. P. WATSON thought that the returns might exceed the estimate by 3001.—Mr. MILFORD, speaking for the committee, considered that if Capt. Richards saw no means of reducing the working cost a call of 7s. per share would be necessary.

A SHAREHOLDER asked whether it would be worth while going on unless the points now being worked for developed profitably in the course of the next three months? Holders of shares were being pressed in all directions, and their shares at the present time commanded a small price on the market.

Mr. P. WATSON said he remembered the shares being done at 6d., and he afterwards sold them at 1s. 6d. In reply to a shareholder, Capt. RICHARDS said that he considered the north lode worth all the rest of the sett.—Mr. F. G. LANE thought that unless the prospects were better at the next general meeting it would be best to stop all the deeper workings.

A call of 7s. per share was made, and it was resolved that the committee be empowered to press for the payment of all calls in arrears, and, if necessary, take legal steps for their recovery.

The committee were elected, and, in reply to a vote of thanks, the CHAIRMAN said that the shareholders had every reason to be satisfied with the management of Capt. Richards, as the committee were, the more especially when it was considered that he (Capt. Richards) had only had the control of the property about nine months, of which time the deeper workings had been under water, about four months.—The proceedings then terminated.

WEST WHEAL KITTY MINING COMPANY.

The general meeting of shareholders was held at the company's office, 71, Bishopsgate-street, on Thursday, Mr. J. B. REYNOLDS in the chair.

The SECRETARY having read the notice convening the meeting, the minutes of the last were read and confirmed.

The statement of accounts showed a debit balance of 5231, 11s. 5d., and a balance of liabilities over assets of 4301, 4s. 9d.

The agent's report was read, as follows:—

April 20.—Since the meeting, held on Dec. 4 last, we have driven the deep adit level about 2 fathoms, in which the lode has improved in appearance, being in the present end 4 feet wide, and worth for tin and copper rather over 31, per fathom. The middle adit level has been driven west 5 fathoms, the lode in the end being 10 ft. wide, containing tin throughout, making its value for the whole width about 201, per fathom. We have cut through the lode in the shallow adit level about 15 fathoms behind the middle adit end, where the lode is 9 feet wide, kindly in appearance, and producing 1½ ton of ore per fathom. We have about 5 tons of tin at surface, which would have been returned if we had had a full stream of water for the stamping-mills. Our present operations consist in driving the middle adit level, on the north part of the lode, by six men, and stopping the back of the same by four men. We could at once raise double the quantity of tin we are now raising provided we had the means of returning it. We have a fall of water of about 40 ft. just below our present stamping-mills, on which a water-wheel, with 20 heads of stamps, might be erected for about 3001, (or the amount which the walls of the engine-house of a water stamping-mill would cost), and when the rent for the water, &c., would be very easy. Should we adopt this mode of working, and drive the three adits west, on the course of the lode, we should very soon get the mine into a profitable state of working. Should our tin ground so far improve that we could not return the quantity of ore produced, by water, we should still be able, in all probability, to make profits, which would enable us to erect steam-power without the aid of falls. The best tin ground in the middle adit is 15 fathoms ahead of the shallow adit end, and about 140 fathoms in advance of the deep adit end; and the middle adit is in this part 40 fathoms deep, the shallow adit 25 fathoms, and the deep adit would be 60 fathoms deep. Before we reach our western boundary these levels would acquire an increased depth of 20 fathoms. It should be borne in mind that the mines adjoining us, and in close proximity both north and south, have made very great profits about and above the deep adit level, and very little below it; therefore, I think that the middle adit is a very good one to erect a new 40-foot wheel and water-mill, to drive the three adits west, and stop the backs at such a rate as would suit our stamping power. I believe that we have a first-rate property, and that if carefully and judiciously handled, it will prove a good mining prize for the shareholders.—JOSEPH VIVIAN.

The CHAIRMAN, in moving the adoption of the accounts and report, said that it must be considered by all present that the report just read was of a most satisfactory character, but the recent dry weather had retarded the operations at the mine. Under more favourable circumstances the returns of tin would have been considerably greater. With reference to the property, there could be but one opinion, and he had very much pleasure in submitting the statements now before the meeting for adoption and circulation.

In reply to a shareholder, Capt. Evans expressed his entire confidence in the future of the property, and suggested that more men should be put on to drive the middle adit.

The report and accounts were received and adopted, and a call of 2s. 6d. per share was made.

A lengthened discussion then took place as to the most economical mode of working, and Capt. EVANS promised that every economy should be exercised.

A cordial vote of thanks to the Chairman terminated the proceedings.

FRONTINO AND BOLIVIA (SOUTH AMERICAN) GOLD MINING COMPANY.

The fourth general meeting of shareholders was held at the London Tavern, Bishopsgate, on Wednesday, Mr. GEORGE NOAKES, F.G.S., in the chair.

Mr. H. L. PHILLIPS (managing director) read the notice convening the meeting.

The report of the directors stated that at the last general meeting it was agreed that the future meetings of the shareholders should be held half-yearly, and that the accounts should likewise be made up half-yearly. In carrying out the understanding referred to, it has not been practicable to have the first meeting under that arrangement at an earlier period than the present, because, in the first place, the board had not received the requisite information from the country to enable them to make up the accounts for the year ended on the 31st of December, and in the second place, the directors had been previously adopted, so that they might from that date be commenced upon the principle of a distinct half-yearly account, in the form of a statement of profit and loss for the six months ending Dec. 31. The directors are of opinion that this form will best enable the shareholders to judge of the results of each half-year's working of the company's mines. The directors have placed to the debit of the profit and loss account the balance of that account, as unfavourable, they do not feel discouraged, because it is to be accounted for partly by the unsettled political condition of the country, which caused the dispersion of the labourers; and partly because the new management had not been long enough in operation to bring about the profitable results anticipated. The legal proceedings which had been taken in New Granada, relative to some portions of the company's property, have all terminated in the company's favour, and although the directors have received leave no doubt that the company will be in the end perfectly successful. The directors have devoted much attention to the collection of the arrears of calls, and they have been very successful in their endeavours. With reference to the working of the various mines belonging to the company, the directors are advised that it would be desirable in the first place to develop those situated in the Bolivia district, and they are informed by Mr. Rouch that the mines now worked there are La Solada, the Maria Dama, and the Juan Criollo (the latter mine having been recently commenced by Mr. Grief); and it is believed those three mines will produce good results. The Juan Criollo Mine has already given very satisfactory profits upon the outlay made on it; although the two former have as yet failed to produce sufficient gold to meet the current expenditure; but Mr. Rouch states that he hopes to obtain results equally satisfactory as those which have been attained by the development of the Juan Criollo Mine. There are 18 heads of stamps now erected at La Solada, and 12 heads each at the Maria Dama and Juan Criollo Mines, and Mr. Rouch, in his last communication, states that he hopes to have three additional mills erected by the end of May, and three more by the end of the year. At Frontino operations have been conducted upon a limited scale, principally with the view of keeping the property free from encroachment. It is the intention, however, of Mr. Rouch to gradually extend those operations, and there is every prospect of his doing so with favourable results. Mr. Rouch and Mr. Carlos Grief are preparing a joint detailed report on the operations of the Bolivia mines for the past year. This report will state the nature of the work that will be laid out for the ensuing year, and the probable results which may be expected. Mr. Rouch states that this report will no doubt be considered very satisfactory. Mr. Rouch also states that after the report upon the operations of the past year is made up, he intends to forward the monthly detailed information requested of him; but that until he had effected very considerable changes in the administration of the company's affairs, it had not been practicable to issue such regular information as would convey any accurate idea of the nature and prospects of the various points in operation.

The profit and loss account from July 1 to Dec. 31 shows that the gold sold during that period had realised 2821, 3s., making (since the formation of the company) a total of 12,671, 8s. 9d. The amount carried to the debit of the profit and loss new account is 3231, 10s. 7d.

The CHAIRMAN said he wished it were in his power to report the attainment of the brilliant success that was predicted at the commencement of the company; that, however, had not been realised, nor, indeed, had those results which were anticipated at the last meeting. They knew, from their experience, how frequently in these foreign countries unforeseen contingencies arose which rendered the achievement of the objects which at the time seemed more than probable. There were probably one or two redeeming features in the present aspect of their affairs, which, although not equal to the results expected at the outset, yet were exceedingly satisfactory. The pre-

sent management commenced in the year 1867, when there were debts against the company amounting to over 10001, but at the end of that year the company was paid off, and there was a balance in hand of 28001, the amount remitted to Mr. Rouch in the meantime having been 13,0001. This had the effect of re-establishing the credit of the company in New Granada; so far it was satisfactory, but it would have been more satisfactory to the shareholders, as it would have been to him, if it had been possible for him to have said the mines were now being worked to a profit, and that there were some hopes of dividends being declared. During 1867 many circumstances had occurred which it seems that interrupted the regularity of the correspondence from the mines. He was exceedingly disappointed at thus not receiving regular information, because it prevented the directors communicating it to the shareholders, and thereby the board had been placed in a very embarrassing position. He believed it had been a source of great dissatisfaction among the shareholders that this information had not been communicated, but, unfortunately, the board did not receive any communications for several months, owing to the postal service being interrupted by the state of the country. It was true that Mr. Rouch, in his letters, had stated that he hoped to be able to make considerable profits within a special period, but there, again, was the danger of agents abroad making promises for a specified amount of returns or value, because no one could tell what contingencies might arise. These were the difficulties inseparable from foreign mines; but he hoped and expected to receive from Mr. Rouch, by the next mail, a full and detailed report, and that henceforward regular monthly technical reports would be received by the board, and communicated to the shareholders. He then proceeded to read extracts from letters of the board, as well as his own, urging Mr. Rouch to forward the necessary information; the reply made by Mr. Rouch was that the interruption in the postal service had hitherto prevented him doing so, but that he hoped to repair that by giving a full and detailed statement of the work that had been in operation during the past year, and to state what he hoped to do in the present year. The only information, therefore, that the board could give was that which related to the working cost of the mines, and to the returns that had been received. He had been informed that a section of the shareholders were dissatisfied with the action of the board; if they meant that they were dissatisfied and disappointed with the results which had been hitherto achieved by the company, he could sympathise with them. He had the same feeling in common with every gentleman in the room. He (the Chairman) was very glad this dissatisfaction had been expressed, because it was to the benefit of the company, and it showed that the shareholders were not satisfied with the results which had been achieved. He hoped their verdict would now be recorded. At least, the consciences of the directors were clear, they having endeavoured to do their duty, and certainly no board had devoted more time in the service of a company. He was not now speaking of himself personally, because his own avocations were such that he was not able to devote much more time to it beyond the regular fortnightly and monthly meetings; but the members of the committee sat weekly, and sometimes twice and twice a week, and had undergone an amount of labour the few gentlemen would have done in connection with any company. Mr. Rouch had not been able to perform his duties, for not a week had passed that he had not been at the office of the company two or three times, and for several hours; and Mr. Phillips, their managing director, had also been unremitting in his exertions to bring the company into a satisfactory position; indeed, each had done his utmost. But he would not rest upon the eulogies of themselves. The question as to the future directorate was one which the shareholders had to decide. As far as he was concerned, he would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the anticipated results were not achieved, he alone must be held accountable. He would not take up their time, except to say that if the company were not at all a desirable position to occupy, for when success was not achieved, it very frequently acted back upon those who were the least blameable. They were 5000 miles from the scene of action, and could they control the operations of a mine at that distance? It was obligatory to place the power in the hands of an agent, and to have confidence in him so long as they were able to do so; and if the

I beg to inform the mining interest that my work, under the above title, for 1886 and 1887, is now ready for the following purposes—viz., the geological and mineralogical present prospects, names of pursers, managers, and secretaries, with statement of the annual returns of each mine during the last two years, and of total dividends paid to the present time. The work is illustrated by a map of Cornwall and Devonshire; geological district maps, divided into eight sections, in which will be shown the boundary lines of each parish, height of hills, sources of rivers, &c.; maps of St. Just, St. Ives, Marazion, Helston, Gwinear, Hiverton, Bunting, Liskeard, Devon Great Consols, Ashburton, and St. Austle, showing boundary lines of each property, with the lodes, &c., traversing them.

It also contains transverse and longitudinal sections of Dolcoath Mine (kindly supplied by the late Captain Charles Thomas); section of workings in Botallack lode (supplied by the manager, S. H. James, Esq.); longitudinal sections of workings upon the main lode in Great Wheal Vor and Treowean Mines; geological map of the Fowey district (supplied by Major Davis, R.M.); historical map of the Devon Great Consols, and of all the principal mines in the two counties.

Subscribers who have not yet received a copy of the above will have the same forwarded on Wednesday next.

43

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

pass that small era—course just ahead. The lode in the end continues large, and contains more or less ore throughout.

CEFN BRWYN.—James Paull, April 16: The lode in the 92, going east of engine-shaft, has become a little softer, and has no production of a fat, but still showing some of the same character. The lode in the 91, going east of engine-shaft, of the same level, going west of shaft, is about 3 feet wide—a hard and strong lode, containing blende and a little lead ore, with every indication of a speedy improvement. The lode in the 80, going east of engine-shaft, is 5 feet wide, disseminated throughout with small branches of lead ore, producing about 10 cwt.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., April 18: The lode in the 70 west is looking exceedingly kindly, the ore part being 2 feet wide, yielding 4 tons of good quality ore per fathom. The part of the lode carried in the 70 east

brought out of the mine. When the 20 west is clear I shall put a set of men to drive on this level, being one of our main points. I have engaged a dresser, and promised to give him \$2. 10s. per month, and if he gets 30 tons of lead ready for market by the end of June he is to have 12 as a gratuity.

MINERA UNION.—W. T. Harris, April 23: Low's shaft is 6 yards below the

140 yard level; owing to the wet weather the water has been troublesome, but

ROARING WATER.—Henry Thomas, April 20: In consequence of the continued vertical dip of the rock in Gillman's engine-shaft, and it being surmised

WEST ST. IVES.—Thomas Uren, April 22: We have cut the east and west lode west of the cross-course; it is a large, beautiful lode, producing both tin and copper, being very productive for copper, and greatly improving as we open upon it.

WHEEL SPARNON.—W. Tregay, April 18: Beltry Shaft: The lode in the 15, east of this shaft, is large, and producing stones of copper ore and tin; ground

favourable for driving. In the 16 west the lode is unsettled at present by a horse of elvan, and the ground rather hard for driving.

SOUTH FRANCES AND WEST BASSET.—On Thursday the London solicitors to South Frances and West Basset, in the case of "Lyle v. Richards," attended a further appointment before the learned Baron who tried this action, on the subject of the appointment of a reference to assess damages. There were present also the Baron's clerk and the clerks of the two solicitors. Before hearing them the Baron, addressing the London solicitor to South Frances, told him that his letters, stating that he (the London solicitor to South Frances) had received instructions, were useless, and that he was to have communicated his clients' answers both to the Baron and the West Basset solicitor. It is now clearly demonstrated that the letters upon the subject from the West Basset solicitor (published in the *West Briton*) were strictly correct. To prevent, as far as possible, any further misrepresentations, the West Basset solicitor asked the Baron's permission to place his answers before him in writing, and he accordingly read them, and left his letter with the Baron. Some further difficulties are now raised with regard to the form of the order of reference, which prevented a conclusion of the matter.

NORTH ROSKEAR.—A heavy undertaking was commenced in this mine about nine months since, consisting in the erection of a steam-engine on Pearce's shaft, and enlarging the shaft so as to transform it from a small drawing shaft to one adapted for an engine and drawing shaft combined. The great amount of labour connected with this operation will be appreciated when it is known that this shaft is nearly 230 fms. in depth (it being sunk to the 205 fm. level under the adit, and the adit being about 24 fms. deep in this part of the mine), and for at least two-thirds of this depth the shaft passes through a channel of hornblende, which is the hardest description of rock that the Cornish miner has to contend with. The enlarging or "cutting down" of this shaft has been going on incessantly day and night until the completion of the work, about two months ago, since when the pitwork has been placed in position from top to bottom, including two balance-bobs (one at surface and the other in the 110 fm. level), two arrangements for breaking the angles, and stays, divisions, casing, and ladder-rod fixed. The object of this great work is to develop a valuable formation of copper ore which is found going below the 205 fm. level, where it is worth from 80 to 60¢ per fm., and easy for extracting. On Wednesday the engine, with its 220 fms. of pitwork, was started into motion, in the presence of some of the shareholders, members of the committee, agents, and workpeople of the mine, and all were equally delighted at the manner in which the whole of the machinery commenced moving, without a single hitch or hindrance of any kind, working with a smoothness and ease which could hardly be supposed possible in connection with such heavy appliances and variety of movements. It showed the precision and mechanical accuracy with which all the work had been carried out. In every department, and in the large formations of copper which formerly made this mine celebrated occurred in the eastern and central parts of the property, from which, together with tin since discovered, the sales have realised 1,250,000¢. But the western ground has hitherto been found to contain only bunches of copper ore of less extent. This may be owing to the fact that the elvan courses which traverse the clay-slate rock come in contact with the lodes at the shallow levels in the eastern and central parts of the mine, and that about such points of contact the large bodies of copper ore were met with; but that in going west the elvan courses diverge from the lodes, and come in contact with them only at a much greater depth by having a greater underlie, where, therefore, it may be that the large bodies of copper corresponding with those already worked away may be met with. It seems likely, judging from the dip of the elvan, and other circumstances affecting its line of direction, that the bottom of Pearce's shaft is about 30 fms. above the elvan course, and a probability is thus put forward that the formation of copper ore is not so extensive as was at first supposed to be the case, and may, therefore, prove of considerable extent. A very bold and spirited outlay has been made to determine this point. Should it prove successful, North Roskear may again rank as one of the first copper mines of Cornwall, and give as much or more profit than it formerly did, which amounted to about 110,000¢, on an outlay of about 7000¢. In the deepest part of the mine—that about the Doctor's shaft, which is 267 fms. deep—the prospects for profitable tin mining are improving. Such a prospect, like that by which the export of 27,000 tons of bread-stuff, a woolen cloth manufactory had been started at Geelong; the first piece of cloth was produced successfully. A letter in the *Journal*, dated Ballarat, Feb. 4, says:—"This town is considered the gold metropolis in this most important colony, Victoria; nay, it is the most gold-producing place in the world. The weekly returns are almost fabulous—from 10,000 ozs. to 20,000 ozs. of gold; one mine in particular washed out of the mullock, ran off under ground, in one day, 10,000 ozs. of gold. This celebrated mine is named the 'Western Freehold Gold Mining Company.' There are many more nearly like it. Another gold mine, named the 'Band of Hope Gold Mining Company,' realised from this precious product in the last three years 1,000,000¢."

MINING NOTABILIA

[EXTRACTS FROM OUR CORRESPONDENCE.]

WEST WHEEL FRANCES.—I am glad to find that a step has been made in the right direction in discharging the tin-dresser, and I hope this will be followed by some others, for until that is done I am afraid little profit will fall to the present shareholders. A good practical resident agent is required; and pay him well enough to take an interest in the property of the shareholders, and so keep him from the temptation of jobbing for himself and friends.

CHIVERTON MOOR.—They have just cut through the lode, and in a few days will be in full operation. Up to the present time everything has gone on to the perfect satisfaction of the proprietors, though probably not to that of the "bears."

COUNT-HOUSE EXPENSES—HENRIETTA AND WEST FRANCES.—Permit me to point out a contrast between the amount expended in connection with holding the meetings of these two mines. In one case the meeting took place in the Public Rooms, Redruth, at little or no cost, everything being conducted with the greatest economy, and every particular being put before the shareholders with the greatest readiness, and in a straightforward way, with which everyone was satisfied. In the other case the meeting was called on the mine, for 1 o'clock, but it was full half-past 2 o'clock before the officials arrived. No discussion respecting the mine took place, and but for the reference to the dresser the meeting would not have lasted 15 minutes. It was, however, followed by a handsome banquet, which entailed the labour of one man and three maid servants to serve it. Now, I think that, at least until dividends commenced, the meetings might be held at Glanvieve, in a room hired for the purpose, and instead of expending money and labour upon banqueting it could be better employed in the removal of the heaps of rubbish, broken kiddles, decayed hand-barrows, &c., which now obstruct the way to the account-house.

NORTH LEVANT.—From the reports it would appear that the Stenick part of the sett is opening out even better than was anticipated, and the returns of ore will now be increased. The lode in the 100, east of Law's engine-shaft, still returns large quantities of good paying stuff. The prospects are of a very cheering nature, and the several points of operation are looking healthy.

WHEEL EMILY SILVER MINING COMPANY.—By our advertising columns it will be seen that the old company, formed for working the property, is to be wound up. We also learn that Mr. Paul Baber, the partner, is committed for trial at the Surrey Sessions, at the suit of Major Thomas Ross, of Lascrook House, South Norwood. It is satisfactory to find that a new company is in course of formation to work this mine, which has been so favourably reported upon.

MONTGOMERYSHIRE (Lead and Barytes).—This mine, which will be better known as the Old Bryntail, is bidding fair to rival its rich neighbours—the Van Mine now making 500¢, a month profit, and the Dyllife Mine making 1000¢, a month profit, both on the same lodes. The lode in the shallow level on the north lode is reported to be worth 10¢ per fathom for lead.

AT EAST WHEEL GRENVILLE the lode in the shaft sinking below the 110 has improved to 4 tons of copper ore per fathom. The shaft presents every indication of going down in a large deposit of ore, and a further improvement may fairly be anticipated. The new counter tin lode is also looking well.

AT WHEEL MATTHEW they have cut a splendid lode in the shaft, which is producing rich stones or rocks of grey copper ore. Capt. Jas. Rodda, of Camborne, is the manager, and the offices of the company are at Ashburton, where special reports can be seen and obtained.

WEST BRITON MINE.—Mr. Jehu Hitchins has inspected this mine for one of the principal shareholders, on April 11, and his report fully confirms the favourable opinions expressed by the agents employed, and other reliable authorities who have at various times inspected these properties, including Mr. T. Richards, Bank House, Redruth, and from the extent of ore ground laid open he considers the properties contain every element of success.

HARWOOD.—The deep level at this mine has been steadily progressing for a long time, and is now up to a point within about 20 fms. of cutting into five or six veins, in addition to one just cut, all of which have been productive in an upper level, worked many years ago. The vein just cut is a very large, powerful one, about 12 ft. wide, composed of beautiful soft dark, or mineral, fluor-spar, lead ore, &c. It is very easy to work, and worth, where just seen, 1 ton of rich lead ore per fathom. These works are entirely distinct, and a considerable distance from the Scar Head Mine, where all the ore has hitherto been obtained. The opening out of these new works, the improvement at Scar Head Mine, and the reduction of dues by the lord of the manor will very shortly materially alter the position of this company.

With this week's Journal we give a SUPPLEMENTAL SHEET, which contains the Meeting of the South Wales Institute of Engineers—Devon and Cornwall Miners' Association—"Railways and the Public"—Preferential Shareholders—The West St. Ives Mining District (illustrated)—Australian Mining Reports—Exports of Coal—Tax on Coal—Coal Field on Fire in Scotland—Papers on Practical Mining—Foreign Mining Intelligence: St. John del Rey; Don Pedro North del Rey; Anglo-Brazilian; Rossa Grande; Javali; Chontales; Alamillos; Rhenish Consols; Fortuna; Linares. Prevention of Accidents from Over-Winding: Ormerod's Patent Safety Link (illustrated)—Generation of Steam by Gas Heat (illustrated)—New Lubricant Tester (illustrated).

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, APRIL 24, 1868.

COPPER.		IRON.	
Best selected, p. ton	83 0 0	Bars Welsh, in London	6 5 0
Tough cake and tile	80 0 0	Ditto, to arrive	6 2 6
Sheathing & sheets	84 0 0	Nail rods	6 15 0
Bolts	83 0 0	Staf. in London	7 6 8
Bottoms	86 0 0	Bars ditto	7 6 10
Old (Exchange)	68 0 0	Hoops ditto	8 5 0
Burra Burra	83 10 0	Sheets, single	9 0 11
Wire	0 1 0	Pig No. 1, in Wales	3 15 0
Tubes	0 0 1 1/4	Refined metal, ditto	4 0 5
BRASS.		Bars, common ditto	5 10 0
Sheets	9d. 10d.	Do. mch. Tyneor Tees	6 10 0
Wire	8 1/4d. 9 1/4d.	Do., railway, in Wales	5 10 0
Tubes	10 1/4d. 11d.	Do., Swed. in London	2 6 10
YELLOW METAL SHEATH.		To arrive	2 6 10
p. lb.	7 1/4d.	Pig No. 1, in Clyde	2 12 0
SPELTHER.		Do. f.o.b. Tyneor Tees	9 6 0
Per ton.	7 d.	Do. Nos. 3, 4, f.o.b. do.	2 6 2
Foreign on the spot	£20 5 0	Railway chairs	5 10 0
" to arrive	20 5 0	" spikes	0 12 0
ZINC.		Indian Charcoal Pigs,	
In sheets	£26 0 0	In London p. ton	7 0 0
TIN.		STEEL.	
English blocks	98 0 0	Swed., in kegs (rolled)	14 5 0
Do., bars (in barrels)	101 0 0	(hammered)	14 15 0
Do., refined	£94 0 0	Ditto, in faggots	16 0 0
Banca	0 0 95 0	English, spring	17 0 23
Straits	0 0 93 10	QUICKSILVER (p. bottle)	6 17 0
TIN-PLATES.		LEAD.	
Per box.		English Pig, common	19 10 12
IC Charcoal, 1st qua.	1 7 0	Ditto, L.R.	19 15 0
IX Ditto, 1st quality	1 13 10	Ditto, W.P.	21 10 0
IX Ditto, 2d quality	1 5 0	Ditto, sheet	20 5 0
IX Ditto, 3d quality	1 11 0	Ditto, red lead	20 15 0
IX Ditto, 4th quality	1 3 0	Ditto, white	27 0 30
IX Ditto, 5th quality	1 9 0	Ditto, patent shot	22 10 0
Canada plates, p. ton	13 10 0	Spanish	18 15 0
Ditto, at works	12 10 0		

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—The improvement already noticed as having taken place in the Metal Market appears to be well maintained; the demand is now becoming much more active, and orders are coming in with considerably more freedom than has been the case for some time, and altogether there is a much more cheerful tone prevailing the market, and the anticipations for the future are far more encouraging; indeed, there seems now every reason to expect that we shall soon find the market resuming the condition of activity and vigour which characterised it in former years, and it is earnestly to be hoped that nothing will arise to retard the progress of the market towards this very desirable consummation. Prices in most cases continue firm, and it may be fully expected that as commercial matters improve, and as confidence becomes more fully established, advances will take place in most metals, several of which are, and have been for some time, below the usual average. One of the consequences of the improvement in business is that there is now a greater demand for money than there has lately been, and this will, in all probability, result ere long in an advance in the Bank rate of discount, which has now remained for so long a period at the very low rate of 2 per cent., but which cannot be expected to continue after an active demand has set in, and it is most likely that when the advance does occur it may be many a year before we again have money at the present low rate. It is, therefore, of importance that those operations which would be affected by the change should be entered into without delay, and while the present facilities are obtainable. Although as yet speculative transactions have not made their appearance in the market, we may expect that with the return of activity and confidence it will be found that this kind of business will again reappear, and when it does so it will add very considerably to the increasing liveliness of the metal trade.

COPPER.—The advices from Chili state the charters for England to amount to 1310 tons, including 30 tons ingot, 840 tons bar, 250 tons regulus, and the remainder ore. The advices from India, however, being rather unfavourable, the market is not quite so firm as it was. Chili bar has been sold at 76¢ 10s. to 70¢, and Wallaroo at 82¢ 10s. to 83¢. English tough cake may now be quoted at 82¢, and best selected at 84¢.

IRON.—In Staffordshire, since the reduction in prices, the leading ironmasters have received rather more orders, and there appeared a prospect of a better demand had there been no strike, but as this has taken place, it has materially interfered with business. At some works the men have returned to their employment, and at others they are expected to do so next week, while at some they seem still determined to hold out. In Welsh the ironmasters are able to keep their establishments in better employ than for a long time past, and there are indications of a return of prosperity to the trade ere long. For rails (the chief manufacture of the local makers) there is an increased demand, principally on account of the United States, the advices from which show that stocks are low, and large supplies are almost certain to be required from this country. Freights are offered to carry iron to the Russian markets, and as the season advances it is expected that the exports will gradually expand. Home buyers are beginning to see the importance of placing contracts without delay, so as to secure the advantages of the present low prices, and wherever the finances permit the railway companies are entering into engagements more freely. In Swedish iron rather more business is doing, but holders are, however, not quite so firm in their prices. In Scotch pig-iron the market has been exceedingly quiet during the week, and the price has hardly varied at all, closing the same as last week, 52s. 3d. cash.

LEAD.—A moderate business is still doing, and prices remain without any alteration.

TIN.—The market for Straits is not quite so firm as it was last week, some business having been done at 93¢ cash for small quantities, however holders ask 93¢ 10s. English remains at the smelters' quotations.

SPELTHER has remained inactive throughout the week, very few transactions having taken place. The price on the spot remains as previously quoted.

TIN-PLATES.—Makers are well placed for orders, and the current quotations are obtained without difficulty.

STEEL remains rather inactive. **QUICKSILVER** without change.

The MINING SHARE MARKET has been moderately active this week, but a fall of 3 1/2 in the standard for copper ore, on Thursday, has not tended to improve its tone. In Prince of Wales, Emily Henrietta, Grenville, East Grenville, Marke Valley, and West Seton transactions have taken place at advanced prices, while Chontales and a few others have declined. Prince of Wales shares have advanced to 52s. 6d., 55s., and ore coming in at the 65 east; other parts remain the same. East Grenville, 37s. 6d. to 40s.; the lode at the engine-shaft has improved to 4 tons of good copper ore per fathom. As this is the rich lode of South Frances and West Basset, and at about the depth the late agent of the latter mine expected it to improve in East Grenville, the present appearances are looked upon as important. Wheel Grenville, 37s. 6d. to 42s. 6d.; the new lode in the 120 is worth 30¢ per fm. Chiverton Moor, 5 1/2 to 6 1/2; Carn Brea, 17 to 19.

Chontales shares, since the arrival of the mail, have been very flat, and leave off 2 1/2 to 2 3/4; the report of Mr. Belt to the directors is satisfactory, so far as relates to the mines, but shows that the management, thus far, has been most extravagant and unsatisfactory. Great

changes have, in consequence, been made, and the expenses are to be considerably reduced. Mr. Belt expected to get the steam-stamps at work at St. Domingo in two months from the date of his advices, and when at work, they would stamp 50 tons a day, which, at 1/2 oz. of gold per ton, would produce 1050 ozs. per month, in addition to the produce of the arrastres, which are dependent on water-power. Should these expectations be realised, and the costs reduced, the mines would commence good profits in two months time. The present financial condition of the company, as given to us officially, is this: There was cash in hand to end of February, here and in Nicaragua, 9050¢; arrears of calls, 3700¢; received per last remittance of gold, 930¢ 7s. 7d.; total of assets, 13,680¢ 7s. 7d. Against this, there would be the costs of February, March, April, and May, including contracts; and, as we are officially informed, every known liability of the company, 12,000¢, which would leave Mr. Belt, at the end of three months, with 1680¢ 7s. 7d. in hand, irrespective of the gold he will sell in the meantime; and as he expected to get the stamps at work in two months, he hoped to bring the mines round to a profitable state without any further capital from the shareholders. As contingencies, however, might arise, rendering it undesirable to run the balance in hand so close, we understand a proposition will, probably, be made by the directors, whereby any money required may be raised in a way, we think, to give general satisfaction. The report of Mr. Belt is necessarily confined to a good deal to the state of the management, and his next will go more into detail as to the state and prospects of the mines, which, so far as he has seen them, he considers well worthy a further expenditure, even of 50,000¢, had it been required.

Cook's Kitchen, 1 1/2 to 1 3/4; East Lovell, 8 1/2 to 8 3/4; Frontino and Bolivia, 1/2 to 1/3; Great Laxey, 16 1/2 to 17; Great Retallack, 2 1/2 to 2 3/4. Wheel Emily Henrietta have advanced to 40, 45; at the meeting, on Monday, the accounts showed balance against the mine, 657¢ 18s. 4d.; on the 9th, copper ores (not credited in the accounts) were sold for 640¢ 3s. 8d., and the next sampling is expected to realise a sum sufficient to meet the costs of the ensuing three months; the mine has considerably improved, and the 60 fm. level has been in a good course of ore more than 17 fms. in length, and from its present appearance the agent thinks it is likely to continue. Clifford Amalgamated, 5 to 5 1/2; at the meeting, the accounts showed a loss on the two months' working of 410¢ 12s. 8d., and a balance against the company of 399¢ 10s. 6d.; the manager remarked that if they could have been favoured with the advance in the standard, and the rise in tin, upon the produce credited in the accounts, there would have been a difference of 500¢, and a profit of 100¢, instead of a loss; the next accounts will show very little if any loss; a course of ore had been cut in the 240, west of Francis's shaft, worth 2 1/2 tons per fm., which was considered important. At Brookwood meeting, held on the 15th, a dividend of 2s. 6d. per share (500¢) was declared, leaving 223¢ 3s. in hand. The ores sold during the four months realised 2152¢; the lode has been cut in the 90, worth 50¢ per fm.; 80 west, 30¢ per fm.; three stopes in the back of the 80 east and west are worth 6 tons of copper ore per fm.; the back of the 70 east continues very productive, altogether 14 tons of copper ore per fathom; in the back of the 70 west there is a stope worth 8 tons per fathom. Stray Park, 3 to 4; at the meeting, the accounts showed a balance of 635¢ 15s. 1d. against the company, and a call of 12s. per share was made; the lode is 13 fms. below the 265, worth for 12 feet 30¢ per fm.; there is a large quantity of ground that could be worked to advantage with a higher price for tin; in the last few fathoms sinking the lode has been of better quality than in the upper levels.

East Caradon, 3 1/2 to 3 3/4; at the meeting the accounts showed a balance in hand of 2167¢ 7s. 9d. The loss on the quarter was 460¢ 13s. 1d. The cost, the agent reports, has been considerably increased during the past quarter, as the water coming from the mine contains such a strong solution of copper that it destroyed the iron condensing work of the engines, and to remedy this new had to be cast, with brass linings. It is hoped, however, the recent rise in the standard will enable the mine to meet the current costs, and the prospects for fresh discoveries of ore are good. Great Wheel Vor, 18 to 19; Rodsfoot, 38 to 40; Marke Valley, 6 1/2 to 6 3/4; North Chiverton, 4 to 4 1/2; North Crofty, 2 1/2 to 2 3/4; North Domes, 1 1/2 to 1 3/4; North Treskerby, 17s. 6d. to 20s.; Providence Mines, 27 to 28; South Caradon, 390 to 400; South Frances, 19 to 21; Tincroft, 14 1/2 to 15 1/2; West Caradon, 63 to 7 1/2; West Drake Walls, 6s. to 8s.; West Prince of Wales, 9s. to 10s.; West Seton, 205 to 210; West Tolgus, 25 to 30; Wheel Basset, 65 to 67; Wheel Mary Ann, 21 1/2 to 22 1/2; Wheel Seton, 74 to 76; Wheel Trelawny, 8 to 9. Wheel Chiverton, 2 1/2 to 3; in the 110 east the lode is much improved, worth 5 cwt. of silver-lead per fathom. West Chiverton, 64 1/2 to 65; the 110, east of Hawke's, is worth 10¢ per fm.; taking down lode behind the end, 50¢; the 110 west is improved to 25¢; taking down the whole of the lode, worth 80¢ per fathom. The 100, west of cross-cut, 40¢. The 100, east of ditto, 45¢. The 100, west of No. 3 winze, 60¢; the 100 east, 50¢. The 90, west of Burgess's, on the north lode, is held to Batters's cross-cut, and opened out a good piece of lead ground. In the 90, west of Batters's, in No. 2 cross-cut, the north lode has been intersected, and so far as seen is worth 25¢ per fathom.

A very active business continues to be transacted in Mining Shares on the Stock Exchange, in many instances prices have fluctuated considerably. The feeling is still to buy low-priced shares, Anglo-Brazilian, Rossa Grande, and English and Australian Copper having been in good request; the latter on a reported very advantageous arrangement with the Burra Burra Company. Chontales shares have been very depressed, and close flat at 2 1/2 to 3, on the expectation that fresh capital will be required. Don Pedro shares have also receded, and close flat, it being feared that the operations at Maquine may have to be suspended, on account of the water. The accounts from St. John del Rey show an increased loss, and a decrease in the produce; but notwithstanding, the price has been maintained. Yudanmutana shares are in demand at the advanced quotation; most other shares have ruled steady. The following are the closing quotations:—St. John del Rey, 20 to 21; Don Pedro, 1 1/2 to 1 3/4 prem.; Anglo-Brazilian, 1/2 to 1/3 prem.; Rossa Grande, 1-16th dis. to 1-16th prem.; Pestarena, 1/2 to 1/3 dis.; Frontino and Bolivia, 1/2 to 1/3; United Mexican, 1 1/2 to 1 3/4; Anglo-Italian, par to 1/4 prem.; Worthing Mines, 5-16ths to 7-16ths; Port Phillip, 1 7-16ths to 1 9-16ths; Central American, 1/2 dis. to 1/4 prem.; English and Australian Copper, 13-16ths to 15-16ths; Yudanmutana, 23-16ths to 25-16ths; Kapunda, 3-16ths to 5-16ths; Allamillos, 1 1/2 to 2. A better business has also been done in British Mine Shares. Great Laxey are steady at 16 1/2 to 17 1/4. West Chiverton shares command attention at 64 1/2 to 65 1/4; the lodes in the bottom level are about the same value as when last reported on, and the lode in the 90 west, or extreme western portion of the mine, has improved to 25¢ per fathom, and is an important feature. Chiverton, 2 1/2 to 3; the lode in the 78 east is of a very promising character, and the lode in the 110 east has very much improved, and is turning out some good silver-lead ore. The report is the best that has been received for some months past. Chiverton Moor, 5 1/2 to 6 1/2; Chiverton Valley, 4 1/2 to 5; Prince of Wales shares have improved to 51s. 52s. Emily Henrietta, Seton, East Grenville, and Wheel Grenville shares have improved. Great Wheel Vor shares are unchanged, at 18 to 19. There is no particular feature to note in North Wales mines. Miners shares are quoted 165 to 175; Maes-y-Safn, 26 to 28. Glan Alun, 7s. to 8s.; the cross-cut being driven to intersect the Thornetree lode is in a mineralised channel of ground, and producing good stones of lead. There is every reason to expect that a course of ore will be met with, and this independent of the rich discoveries made on the main lode.

IRISH MINE SHARE MARKET.—Mining shares were in very great demand throughout the week, although the royal visitors are, of course, still absorbing much attention and time on the part of our leading men. Mining Company of Ireland shares (7 1/2 paid) are very fairly maintaining their recent great advance, having been freely taken at 19 1/2 15s. both for cash and account. Wicklow Copper Mining Company's shares (2 1/2 10s. paid), have gone up 15s. per share, or from 13 1/2, last week's closing price, to 13 1/2 15s., leaving off, however, somewhat weak, buyers offering only 13 1/2 12s. 6d. Connore shares have been taken at 4s. 9d., and would, probably, be obtainable at 5s. Cape Copper shares have advanced 7s. 6d., being in request at 11 1/2 15s.

Some details, in addition to the brief and generalised notice given in last week's Journal, of the Connore Mining Company have a public interest, because they go far to illustrate the now incontest-